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In The Matter Of:

*Iron Workers v.
Philip Morris*

*CATHY L. ELLIS, Ph.D.
Vol. 1, January 6, 1999*

in
HUMPHREY

**INTERIM COURT REPORTING
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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION
IRON WORKERS LOCAL UNION No. 1
17 INSURANCE FUND and Re)
Trustees, et al.,) No. 1:97CV4422
Plaintiffs,) VOLUME 1
vs.
PHILIP MORRIS, INC., et al.)
Defendants.)

Deposition of CATHY L. ELLIS, Ph.D.,
at 851 East Byrd Street, 14th Floor,
Richmond, Virginia, commencing at
9:42 A.M. Wednesday, January 6, 1999,
before [Redacted] Private Writer, a Registered
Professional Reporter and Notary Public
for the State of Virginia at Large.

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(1) CATHY L. ELLIS, Ph.D., (2) having been first duly sworn, testified as follows:

(4) EXAMINATION

(5) BY MR. CRANDALL:

(6) Q: Dr. Ellis, my name is Steve Crandall. We met a few moments ago and this is a deposition. I think you are aware, is taking place in (7) connection with a case known as the Iron Workers Local Union Number 17 versus Philip Morris et al.

(11) You're generally aware of that?

(12) A: Yes.

(13) Q: And you have had your deposition (14) taken before with relation to tobacco cases, is that (15) correct?

(16) A: Yes.

(17) Q: So that, at the beginning of those (18) depositions, lawyers have gone through with you and, (19) basically, covered certain ground rules. I'll say (20) common sense ground rules, is that true?

(21) A: In some of them, yes.

(22) Q: All right. Let me just quickly go (23) through them with you. Although we're in an informal (24) setting in a conference room, you understand that the (25) testimony you're giving is under oath and it's just as

(1) solemn an oath as if you were in Court, correct?

(2) A: I understand that, yes.

(3) Q: And also, perhaps the most (4) important ground rule is to make sure you answer a (5) question that you understand. Okay?

(6) A: (Witness nodded her head in an (7) affirmative manner.)

(8) Q: And, also, to give a verbal (9) response. I just

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saw a nod there.

(10) A: Well, I wasn't sure you were (11) through with the question, so I didn't want to speak.

(12) Q: Okay.

(13) A: But, yes, I understand that, also.

(14) Q: All right. Because, this record (15) will just have a formal written transcript made up (16) that you can sign. But, I will try and let you answer (17) and if you can try and let me get the question out, it (18) will be a question and answer and also only to (19) questions that you understand; and, if you don't, just (20) let me know, and I'll try and rephrase it. Okay?

(21) A: Yes.

(22) Q: Okay. Now, you have been (23) designated as an expert in this matter, correct?

(24) A: Yes.

(25) Q: And prepared an expert report.

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(1) correct?

(2) A: Yes.

(3) Q: All right. I'm going to place (4) before you what I have marked as Exhibit 1 to this (5) deposition.

(6) (Deposition Exhibit No. 1 (7) was marked for identification and is (8) annexed hereto.)

(9) MR. CRANDALL: Mr. Fowler, here is (10) one for you, too.

(11) MR. FOWLER: Thank you very much.

(12) Q: First of all, is that the report (13) that you prepared in connection with this case?

(14) A: Yes.

(15) Q: Can you tell me, generally, what (16) you did to prepare this report? In other words, -

(17) MR. FOWLER: May I interject at (18) this point? Just to make the record clear, the report (19) has a copy of Dr. Ellis' C.V. and a copy of the index (20) of reliance materials, as well.

(21) MR. CRANDALL: That's right. And my (22) understanding is that they were provided as a package, (23) but I could be wrong.

(24) Q: Do you know, Dr. Ellis, whether (25) they were all sent as one or -

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(1) A: Well, I did not send them in, so I (2) do not know whether they were sent as one.

(3) Q: Okay.

(4) MR. FOWLER: But I can say that (5) they were.

(6) MR. CRANDALL: All right.

(7) Q: So the Exhibit 1 does consist of (8) your report, as well as your resume', and also certain (9) documents that are referenced following the resume', (10) correct?

(11) A: That's correct.

(12) Q: All right. Generally speaking, how (13) was it that you came about to be contacted about being (14) an expert witness in this case?

(15) MR. FOWLER: Object to the form.

(16) A: Well, I had been involved, as you (17) have already noted, in several cases, and I have (18)

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testified previously. So, in terms of a specific (19) notification, you know, I have been involved in many (20) of these cases, now, for several years. (21) I can't say I can point to a (22) specific notification, per se. I've been working on (23) materials. This Curriculum Vitae, for example, has (24) been on my computer for years and has been updated, (25) so, you know, it's been a long process.

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(1) Q: Okay. Looking at the last page of (2) the Exhibit I having to do with your expert report, (3) and, for the record, I think it's a six-page expert (4) report that's signed by you on November 18, 1996, is (5) that correct?

(6) A: That's correct.

(7) Q: All right. Can you tell me about (8) how far in advance of November 18th you were contacted (9) about your involvement in this particular case?

(10) A: I really can't recall, because I (11) have signed several expert reports within the last few (12) months virtually identical to this one and have been (13) working on simultaneously. So, you know, I might have (14) seen something very much like this, you know, two (15) weeks or a month before that.

(16) Q: Okay.

(17) A: Okay?

(18) Q: Which leads me to my next (19) question, which is this.

(20) A: Yes.

(21) Q: That leads me to my next question, (22) which is, were there any issues that you saw in (23) connection with this Iron Workers Local Union case (24) that you did not see in connection with other tobacco (25) cases or, to put it another way, I guess I'll phrase

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(1) it, was there anything you saw unique or different (2) about your testimony in this case as opposed to other (3) cases?

(4) MR. FOWLER: Object to the form.

(5) A: I will say that, yes, in some (6) cases, the expert report was somewhat different. For (7) example, I was involved in the Brown case and that was (8) an ETS-related case. So, yes, it certainly depends (9) what the topics of the case are and those are not certainly discussed and looked at before we take a (10) look at the expert report.

(11) Q: Okay.

(12) A: But certainly, many of the cases (13) are similar in nature, yes.

(14) Q: All right. Did you, in preparing (15) this expert report, did you consult with Counsel?

(16) A: Yes.

(17) Q: All right. And, just tell me how (18) so.

(19) A: In terms of looking at the expert (20) report and then providing the signed copy to them.

(21) Q: All right. And when you say (22) "them," are you talking about Mr. Fowler or was there (23) anybody else that you worked with?

(24) A: I believe there might - It

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(1) actually might have been an associate of Mr. Fowler (2) that I actually directly worked with.

(3) Q: Okay. And who is that?

(4) A: Dyanna Nye.

(5) Q: Spelled N-Y-E?

(6) A: Yes.

(7) Q: Okay. And, aside from providing (8) Ms. Nye with a copy of the signed report, did you (9) discuss what would go in the report with Ms. Nye?

(10) MR. FOWLER: Object to the form of (11) the question.

(12) A: Well, over the months preceding, (13) we have for a long time discussed the topics that I (14) might testify on, and have worked on gathering (15) materials and working on the bibliographies, for (16) example. It's an ongoing process, yes.

(17) Q: Okay. But, with respect to this (18) case, in particular, are you able - Well, let me ask (19) you this.

(20) A: Are you able to differentiate in (21) any way the work that you did on this particular case; (22) that is the Iron Workers' case, and the work you did (23) on other cases, tobacco cases?

(24) MR. FOWLER: Object to the form.

(25) A: I think I've already answered

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(1) that, that there are some differences, yes. However, (2) recently, this expert report may be virtually (3) identical to some of the others. However, you know, I (4) haven't taken account of which ones were identical and (5) which ones weren't.

(6) Q: In connection with preparing (7) Exhibit 1, though, you say you had some interaction (8) with Ms. Nye, is that correct?

(9) A: Yes.

(10) Q: Okay. Tell me as specifically as (11) you can, what that interaction was in terms of (12) preparing Exhibit 1.

(13) A: Basically, I believe in the way (14) things had progressed, that we had discussed an expert (15) report and put one together for another case. And, (16) for this one, there may have been some minor changes (17) that we had done, but, I review it and then sign it (18) and send it back to her.

(19) Q: Did you discuss the substance of (20) what would be in Exhibit 1 with her before you (21) submitted this report to her?

(22) A: Not specifically, no. I had (23) originally, I would say, probably two years ago, when (24) I put together my first expert report, reviewed a (25) number of statements that I felt should go in that

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(1) report. And, in that process, we have modified, based (2) on that first expert report. So that has occurred a (3) long time ago.

(4) Q: Do you remember, as I understand (5) what you're saying, is that you have a report and the (6) reports that you've prepared in tobacco litiga- (7) tions have undergone a series of iterations? In other (8) words, as new cases have come, the

resume' has (9) changed, and you have sort of added to or subtracted (10) from those reports, is that right?

(11) A: That's correct. However, the (12) resume' has changed. I know for a fact, that, you (13) know, in some cases, the resume' was one page. My (14) resume' hasn't changed. This is actually what's on my (15) computer. Sometimes it's been summarized more (16) specifically. So, it really, because of the diversity (17) of the cases and diversity of the attorneys that are (18) involved in the cases, sometimes the information is (19) packaged differently, I would say that.

(20) Q: Okay. In terms of physically (21) creating Exhibit 1, and when I'm talking now, I'm talk (22) about the expert report, so maybe I'll say that.

(23) A: Yes.

(24) Q: In terms of creating your expert (25) report, did you (26) that based on a previous report?

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(1) A: I believe this expert report is (2) close to identical to another one recently done.

(3) Q: Okay. And do you remember which (4) case that was?

(5) A: No, I don't remember specifically, (6) no.

(7) Q: Is there anything, generally, you (8) can say about the case? In other words, was it a State (9) Attorney General case or some other case?

(10) A: I really, really don't know. All (11) I can really tell you is that I know I have worked (12) recently on expert reports for Enge, for Henley, and (13) for Karney and for Iron Workers'. Those are the most (14) recent ones. So it was probably one of those.

(15) Q: Did you do any drafts of this (16) report? In other words, did you, before this became a (17) final product that you sent to Ms. Nye, were there (18) drafts that were reviewed by anybody other than you?

(19) A: Not that I'm aware of, no.

(20) Q: Okay. Was the expert report (21) created off your computer?

(22) A: This expert report, no. The (23) yes.

(24) Q: Okay. How was this expert report (25) created?

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(1) MR. FOWLER: Object to the form.

(2) A: The expert report, I mean, I (3) received a draft copy and I would make edits and (4) corrections, if necessary.

(5) Q: Okay. And from whom did you (6) receive the draft copy?

(7) A: I believe from Ms. Nye.

(8) Q: All right. And, did you retain the (9) draft you received from Ms. Nye?

(10) A: If it was a FAX that I sent back, (11) yes. If it was the actual expert report that I just (12) went and signed, I just sent that right back to her. (13) So, in other words, if the document, if I made no (14) changes and I signed it, like on November 18th I (15) signed it. I would basically overnight the original to (16) her.

(17) Q: Okay.

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(18) A: Okay.

(19) MR. GRANDALL: And, again, Mr. (20) Fowler, -

(21) A: And, I do believe I do retain a (22) copy of all those things I do sign, yes.

(23) Q: Okay.

(24) MR. GRANDALL: The question being, (25) Mr. Fowler, if there are draft reports either that Ms.

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(1) Nye has or that the witness has, we would ask them to (2) be produced. And we don't have to take it up now, but (3) that is a request that we need to deal with.

(4) Q: I mean, I take it, you don't have (5) them here today, right?

(6) A: No. No.

(7) Q: Okay. Now, -

(8) MR. FOWLER: I'm sorry. You're (9) talking about drafts of this particular Iron Workers'?

(10) MR. GRANDALL: Well, whatever she (11) may have been sent from Ms. Nye.

(12) MR. FOWLER: In connection with (13) this case?

(14) MR. GRANDALL: In connection with (15) this case, right.

(16) MR. FOWLER: Okay.

(17) BY MR. GRANDALL:

(18) Q: And, aside from the actual draft (19) report, was there a cover letter or is there anything (20) that accompanied the report from Ms. Nye?

(21) A: If there was a cover letter, it (22) simply stated that, you know, this is a draft of the (23) expert report. Please review.

(24) Q: In your other cases where you have (25) been a designated expert witnesses on tobacco-related

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(1) issues, have the draft reports also come from (2) Counsel?

(3) MR. FOWLER: (Addressing the court (4) reporter) Would you read that question back?

(5) MR. GRANDALL: I'll rephrase it.

(6) Q: In other words, in the other (7) cases, putting aside Iron Workers', was it the custom (8) and practice to receive draft reports from Counsel and (9) then review those drafts? Or, did you prepare them (10) originally on your computer?

(11) MR. FOWLER: Object to the form of (12) the question. It misstates the prior testimony.

(13) A: Yes. Again, I have to go back to (14) the process that I have been through, because there (15) was a process whereby there was a, or, rather, I (16) performed rather extensive work in terms of developing (17) the thoughts that are in this document. And then, (18) obviously, over the two-year period, it becomes more (19) of an iterative process than it did originally, (20) obviously.

(21) So, I would say I had quite a bit (22) of involvement in the thoughts that are in here. (23) However, I will also say I've never directly sent to a (24) Court or to a Plaintiff's attorney any expert report. (25) It does come from the Counsel.

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(1) Q: Okay. All right. Just so we're (2) completely clear on this.

(3) A: Uh-huh.

(4) Q: I understand that you send your (5) signed reports to your Counsel.-

(6) A: Right.

(7) Q: -either Ms. Nye or Mr. Fowler. (8) The question, though, was, and what I think I heard (9) earlier and maybe I didn't, was that there was a draft (10) report that was actually sent to you from Ms. Nye to (11) review, is that right?

(12) A: Yes, and it would have been very. (13) very close to this.

(14) Q: Okay. Do you remember whether you (15) made any changes on it, technical, grammatical, or (16) otherwise?

(17) A: It would have been, again, there (18) were four recently. My recollection is that most of (19) them were very close. In some I know I made minor changes, and in some of them it may have been (21) grammatical. But I don't think there is any (22) substantive difference between this and any draft that (23) I saw.

(24) Q: Okay. And, on those four, I think you said four recent occasions involving the other

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(1) cases, is that right?

(2) A: Uh-huh.

(3) Q: Did those also come from Ms. Nye (4) or Mr. Fowler?

(5) A: Some of them, not necessarily no.

(6) Q: What other lawyers had involvement (7) in your work product?

(8) A: Not know, I wouldn't-

(9) MR. FOWLER: Well, wait a minute. (10) Wait a minute.

(11) A: -say that that's accurate.

(12) Q: What's not accurate?

(13) MR. FOWLER: Yes. I was going to (14) object to the form of the question, belatedly. I apologize for that.

(15) A: I have, again, like I previously (16) said, there are different cases in different (17) situations, and so I would be contacted by different (18) people. And, in some cases, the topics were (19) different, and we would develop a different set of (20) thoughts here, obviously.

(21) Q: All right.

(22) A: And, in some cases, I did not go (23) through Ms. Nye.

(24) Q: Okay. Let's take the four most

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(1) recent cases, and I guess you were including Iron (2) Workers as one of those four cases, right?

(3) A: Uh-huh.

(4) Q: All right.

(5) A: I'm trying to think of which one (6) it was that recently I didn't. It might have been one (7) of the AG cases. I'm not sure.

(8) Q: Okay. In those three other recent (9) cases,

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did you receive draft reports from Counsel?

(10) MR. FOWLER: Object to the form.

(11) A: Excuse me. Would you repeat that?

(12) Q: Sure. In the three other recent (13) cases, I think it was Hensley-

(14) A: Hensley.

(15) Q: -Engle, Hensley and something that (16) began with a C., Karney or Carrie, something like (17) that?

(18) A: Karney.

(19) Q: Okay.

(20) A: It begins with a K.

(21) Q: Okay. Karney, Engle and Hensley?

(22) A: Hensley.

(23) Q: Hensley. Okay. In those three (24) cases, did you receive draft reports from Counsel?

(25) MR. FOWLER: Object to the form.

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(1) A: Again, I have received draft (2) reports, yes. But, this has been a long two-year (3) process, and I don't want to mischaracterize it as (4) being a process whereby it was drafted for me, per (5) se. And I want to make that very clear. These (6) thoughts are mine, and we have gone through a process (7) now where there is a lot of repetition, yes. But, I (8) don't sign something that I don't input into.

(9) Q: All right. But, just to get back (10) to my question.

(11) A: Yes.

(12) Q: Irrespective of how you - I mean, (13) I understand that you wanted to make that statement. (14) That's fine. But, my question to you is, in those (15) other three cases, did you physically receive draft (16) reports that were sent to you by Counsel to review and (17) sign?

(18) MR. FOWLER: Objection. I object to (19) Counsel's comments that weren't part of the question, (20) and I also object to the form of the question as (21) having been asked and answered numerous times.

(22) A: Frequently, we would take a draft (23) and then, a previous draft or discuss this is what you (24) put in the last time. Do you want to make any (25) changes? Yes, and I would characterize it that way.

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(1) Q: Okay. And, did you retain copies (2) in any of those other cases of the draft reports that (3) you discussed with Counsel?

(4) A: As I said, if I signed something, (5) I always retain a copy, yes.

(6) Q: Okay. Now, -

(7) A: And if there are changes, I don't, (8) I don't, yes, I would have those copies, if there were (9) changes.

(10) Q: All right. So you would have (11) copies of the drafts, if there were changes?

(12) A: Yes.

(13) Q: All right.

(14) MR. CRANDALL: Mr. Fowler, at this (15) point,

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we're going to request that if there are draft (16) reports and communications with Counsel in any of (17) those other three recent cases that those also be (18) produced and we can take that up later. I just wanted (19) to put that on the record.

(20) MR. FOWLER: And you'll make some (21) formal request?

(22) MR. CRANDALL: No. I'm making it (23) now, but we can discuss it in correspondence following (24) the deposition.

(25) MR. FOWLER: Okay. We'll see what

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(1) some procedure that we'll take from there.

(2) BY MR. CRANDALL:

(3) Q: Now, in terms of getting ready for (4) the deposition today, what did you do?

(5) A: Well, I did meet with Mr. Fowler (6) Monday afternoon and Ms. Nye.

(7) Q: For about how long?

(8) A: I think it was from about one (9) o'clock to about four o'clock.

(10) Q: And where did you meet?

(11) A: In New York City.

(12) Q: And physically where?

(13) A: At Winston & Strong.

(14) Q: And what did you do at that meeting with Mr. Fowler and Ms. Nye?

(15) MR. FOWLER: At that point, I'm going to object and caution the witness that she does (16) not need to answer any questions as they relate to (17) substance of conversations between Counsel and Dr. Ellis.

(18) You can go ahead and answer any of (19) the questions to the extent it doesn't go beyond those (20) bounds.

(21) MR. CRANDALL: Let me just see. (22) Are you instructing her not to answer any questions

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(1) having to do with her discussions with you?

(2) MR. FOWLER: To the extent that they were to invade the attorney/client privilege, (4) yes.

(5) MR. CRANDALL: Not as a (6) expert? I'm not sure I understand how you can make (7) that objection.

(8) MR. FOWLER: Page 2 of your expert (9) report, "I am a fact and expert witness." Factual (10) matters are covered by attorney/client privilege.

(11) MR. CRANDALL: All right.

(12) MR. FOWLER: But, as you have seen (13) during the course of deposition, I have allowed you to (14) ask and the witness to answer questions concerning the (15) development of her expert report, which I think can be (16) fairly segregated. But, otherwise, the witness will (17) be instructed not to answer questions that would (18) invade the attorney/client privilege.

(19) BY MR. CRANDALL:

(20) Q: Okay. How much of the meeting on (21) Monday discussed your testimony today?

(22) MR. FOWLER: Object to the form.

(23) A: Yes. I would characterize it as a (24) meeting

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in which a significant portion at the (25) beginning was to help me understand what this case was

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(1) about, what some of the issues were in this case, (2) because there are many cases right now. So, I would (3) say a significant portion of the discussion was on (4) that.

(5) Q: Okay. And I take it from that that (6) there were other matters unrelated to your testimony (7) today that were discussed?

(8) A: There were some other matters (9) unrelated to the testimony, yes, in my opinion. I am, (10) for example, preparing demonstratives for another (11) case, and we did have some discussion on some of those (12) materials.

(13) Q: Were those as an expert?

(14) A: In terms of testimony, yes.

(15) Q: Okay. So the demonstrative (16) exhibits you were preparing in another case had to do (17) with your expert testimony in that other case?

(18) A: Yes.

(19) Q: All right. And, aside from that, (20) and again, without telling me exactly what was (21) discussed, were there other subject matters that you (22) touched on during this three-hour meeting that were (23) unrelated to your expert testimony in either this or (24) some other case?

(25) MR. FOWLER: (Addressing the court

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(1) reporter) Would you read that question back for me?

(2) NOTE: The requested question was (3) read aloud by the Reporter.

(4) A: Yes, I'm not sure -

(5) Q: Okay. I'll rephrase it.

(6) A: That would be helpful.

(7) Q: Aside from discussing expert (8) testimony in this case and in perhaps another case, -

(9) A: Right.

(10) Q: - what else did you talk about? (11) Withdrawn.

(12) Aside from your expert testimony (13) here and in another case, did you talk about anything (14) else unrelated to those two things?

(15) A: Well, maybe the weather. But, (16) other than that, I really don't recall, specifically, (17) anything.

(18) Q: Okay.

(19) A: I'm not sure I understand, you (20) know. The purpose of the meeting was to, I think (21) review and update me in terms of what the points of (22) this case were so that I had a basic understanding of (23) the issues particular to this case.

(24) Q: Okay. Tell me, in as much detail (25) as you are able, what you discussed during your

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(1) three-hour meeting with Mr. Fowler and Ms. Nye.

(2) MR. FOWLER: To the extent that it (3) relates to expert testimony, is that what you're (4) asking?

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(15) MR. CRANDALL: I think the whole (16) meeting related to expert testimony. But, yes, that's (17) right.

(18) A: Geez. We, let's see, I think (19) that, again, the initial part that I recall the most, (20) which was unique, was the discussion and the update on (21) the status of the case, on some of the recent legal (22) proceedings relating to the case, on, you know, (23) basically, where the case sits right now in terms of (24) where it's at. In terms of, you know, who may be other (25) experts, who may be from our Company, for example, (26) those kinds of things.

(27) Q: Okay. All right. Aside from just (28) topics, I want know, as much detail as you are able (29) to recollect, what Mr. Fowler told you, what you told (30) him, what you told Ms. Nye, et cetera. In other words, (31) I want, as best you are able to recount, the (32) hours you spent with them on Monday.

(33) A: I would say that, again, there was (34) just a general review of the case. There was a (35) discussion of some, I think, new documents that were

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(1) appearing, some of them attorney/client privilege documents, and how that situation might be handled. (2) There were those kinds of discussions. Those are (3) unique and new. It's a status:-

(4) Q: Okay.

(5) A: -this is where we are.

(6) Q: Okay. And what did he tell you (7) about where you were? In other words, aside from (8) saying this is where we are, what did he say where you (9) were?

(10) A: Well, there wasn't any (11) proclamation about where we are. It was, these are (12) some of the things that have happened, and these are (13) some of the things that are new (14) since the last time. (15) This is - These are some documents that are (16) appearing. You know, there wasn't any real (17) proclamation, I would say.

(18) Q: No. I understood. Maybe one (19) of the word "proclamation" was not good.

(20) A: Okay.

(21) Q: But, what did he or she tell you (22) about where the case stood? In other words, based on (23) your conversation with them, -

(24) A: Uh-huh.

(25) Q: -where do you understand the case

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(1) to stand today?

(2) MR. FOWLER: You know, on (3) reflection, same objection because this doesn't (4) concern expert testimony, and I'm going to object on (5) the basis of the attorney/client privilege.

(6) MR. CRANDALL: And, are you going (7) to instruct her not to answer?

(8) MR. FOWLER: Right.

(9) MR. CRANDALL: Okay.

(10) BY MR. CRANDALL:

(11) Q: Now, you said you discussed other (12)

experts or other experts who may be experts from the (13) Company, is that correct?

(14) A: Yes.

(15) Q: What did you discuss about them?

(16) A: Just, you know, who and when and (17) where, you know, they might be deposed.

(18) Q: Who were the people that you (19) talked about?

(20) A: I, you know, happened to know (21) there might be a deposition tomorrow, and, you know, (22) just things like that. In other words, who might be (23) listed as experts, who might be listed as fact (24) witnesses.

(25) Q: Okay.

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(1) A: That's it.

(2) Q: Well, who were you told might be (3) listed as experts?

(4) A: Richard Carchman, Harold Burnley, (5) Brad Scott, Cliff Lilly.

(6) Q: I'm sorry. You went through that (7) list fairly quickly.

(8) A: Richard Carchman, Brad Scott, (9) Cliff Lilly, Harold Burnley.

(10) Q: And was that something that you (11) were not aware of when you went to the meeting?

(12) A: No. I wasn't.

(13) Q: And, -

(14) A: I mean, I might have been aware of (15) certain ones, but, certainly, you know, I certainly (16) wasn't aware of it, specifically, no.

(17) Q: And, did you discuss anything else (18) about what Mr. Carchman, Scott Lilly or Burnley might (19) testify?

(20) A: No.

(21) Q: And, what other specific things (22) were you told in terms of an update of the case?

(23) A: Scientifically or legally?

(24) Q: Either.

(25) A: Specific things relating to recent

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(1) Court proceedings, hearings, certain documents or not (2) documents, but certain briefs that had been submitted.

(3) Q: And what were the recent Court (4) proceedings you were told about?

(5) A: Some of the, in relationship to (6) some of the - I'm not a lawyer, so I'm searching for (7) the correct words - in relationship to some of the (8) discussions on the case in terms of whether or not it (9) might be appealed in a certain other Court.

(10) Q: And what do you mean "appealed in (11) a certain other Court"?

(12) A: Well, in terms of, again, I don't (13) know what the correct legal terms are, but I (14) understand that within the last few weeks certain (15) proceedings have occurred on the case.

(16) Q: What type of proceedings?

(17) A: Appeals relative to this (18) particular case in terms of, I think, the way the case (19) was going, and the claims and whether or not it should (20)

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proceed.

(21) Q: Okay. Can you be more specific (22) than that?

(23) A: No. I'm not a lawyer, so I really (24) don't know what the official terms are.

(25) Q: Okay. But, aside from the official

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(1) terms, so can you be more specific in terms of what (2) you were told about why there might be appeals and (3) things like that?

(4) MR. FOWLER: Objection. Asked and (5) answered. She's already explained that as best she (6) can.

(7) Q: Have you? Are you able to give (8) any more detail in terms of what you were told about (9) the recent court proceedings?

(10) A: I think there's - The only more (11) detail that I think I can give is relating to whether (12) or not legally this sort of claim is valid.

(13) Q: Okay.

(14) A: That's the best way I can describe (15) it.

(16) Q: All right. Now, did you discuss (17) anything else about expert witnesses, aside from (18) discussing the four additional Company witnesses who (19) might be expert witnesses?

(20) A: No.

(21) Q: Did you discuss anything about the (22) Plaintiff's experts?

(23) A: No. Not that can I recall, no. I (24) don't know who the Plaintiff's experts are in this (25) case.

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(1) Q: Now, you said that you discussed (2) that there were newer documents appearing?

(3) A: (Witness nodded her head in an (4) affirmative manner.)

(5) Q: Okay.

(6) A: Yes.

(7) Q: What do you mean by that?

(8) A: Well, that there were certain (9) attorney/client privilege documents that were coming (10) up in certain depositions, and, basically, how Mr. (11) Fowler might handle that and how I should handle that (12) in terms of responding to the questions.

(13) Q: Which documents were those?

(14) A: Gee, I don't know if I recall (15) specific ones or just any specific ones.

(16) Q: Which general ones?

(17) A: Attorney/client privilege (18) documents is all. It was just, again, a discussion of (19) if an attorney/client privilege document is shown to (20) you, that is what I might do, and this is what you (21) should do.

(22) Q: Okay. And what were you told about (23) that? I mean, what were you told you should do?

(24) A: Well, that there would be an (25) objection and then I would probably be asked to answer

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(1) the question.

(2) MR. FOWLER: If I could interject. (3) You're

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aware of the Court's order concerning (4) privileged documents, aren't you, Mr. Crandall?

(5) MR. CRANDALL: Well, I'm just (6) asking question in a deposition that I think I'm (7) entitled to ask, so I don't know whether that's an (8) objection or statement or whatever, but-

(9) MR. FOWLER: It is a question and (10) an honest one, because I just don't know how involved (11) you are in the case.

(12) MR. CRANDALL: Well, all I'm doing (13) is going into your briefing session with an expert (14) witness which I think has no privilege whatsoever (15) attached to it. And, that's all I'm trying to do.

(16) MR. FOWLER: That's fine. I have (17) made my objections concerning the distinction between (18) fact an expert witnesses, but I'll continue with my (19) objections. I just wanted to know, frankly, you know, (20) if you had any information, and I was going to help (21) you out and hand you a copy of the Order, if you (22) didn't know about it. That's all.

(23) MR. CRANDALL: All right.

(24) BY MR. CRANDALL:

(25) Q: Were you shown any particular

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(1) documents?

(2) A: Yes.

(3) Q: What documents were you shown?

(4) A: I was shown a document that was (5) written by Gary Bernstein, a letter that was written by (6) Gary-a response that was written by Gary Bernstein, (7) which is a document that I had never, never seen (8) before that had come up. And I was shown another one, (9) but I, quite frankly, don't recall specifically what (10) it was.

(11) Q: And, what subject matter did the (12) Gary Bernstein document concern?

(13) A: It had to do with his evaluation (14) of the Behavioral Pharmacology Program in R and D.

(15) Q: And what was the date of it, (16) approximately?

(17) A: In the early '80s.

(18) Q: And who is Mr. Bernstein?

(19) A: He was a consultant.

(20) Q: For what particular Company?

(21) A: For Philip Morris.

(22) Q: And what was the nature of that (23) document? In other words, what did the document show (24) or imply?

(25) A: Well, it was -

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(1) MR. FOWLER: Object to the form of (2) the question.

(3) A: It was a document that it would (4) appear was a review of a review presentation that had (5) occurred on the Behavioral Pharmacology Program.

(6) Q: And, do you see that as in any way (7) relevant to your expert testimony here?

(8) A: I don't know. Not necessarily, no. (9) It

certainly, to my knowledge, did not bring up [10] anything new.

[11] Q: And, did you discuss this document [12] with Mr. Fowler?

[13] A: I read it and we talked about some [14] of the things and I think, again, this might have been [15] more of his question as to, you know, have you seen [16] this before, and is this something that - What's your [17] take on this?

[18] Q: And what was your take on that?

[19] A: It was a review that Dr. Bernston [20] was asked to do, and he replied back and my take on it [21] was that there were, - He, basically, reviewed each of [22] the projects that were going on in the area of [23] Behavioral Pharmacology. I think he, as I recall, [24] specifically, commented that the review did not [25] necessarily provide the technical value that the, that

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[1] really was inherent to that work. And, basically, [2] reviewed the different areas and some of caveats [3] the issues with the different areas.

[4] Q: Was he critical of the Behavioral [5] Pharmacology Program?

[6] A: No, I wouldn't say he was. That's [7] not my take.

[8] Q: And, was there anything specific that you remember from that memorandum in terms of [10] particular projects that he was reviewing in his [11] memorandum?

[12] A: It was -

[13] MR. FOWLER: (Addressing the court [14] reporter) Would you read that question back?

[15] MR. CRANDALL: I'll rephrase it.

[16] MR. FOWLER: Thank you.

[17] Q: Did Dr. Bernston review particular [18] projects in his memoranda?

[19] A: Yes.

[20] Q: Which projects did he review?

[21] A: Well, he certainly reviewed, I think the - I remember the EEG studies he reviewed.

[22] Q: I'm sorry?

[23] A: EEG. He reviewed some of the [24] studies on compensation. I recall. He reviewed, I

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[1] think, some of the studies on nicotine.

[2] Q: Was this done at your behest or [3] someone else's, this review by Dr. Bernston?

[4] MR. FOWLER: Object to the form.

[5] A: Not by me, no. Personally, me?

[6] Q: Yes.

[7] A: My understanding, it was requested [8] by the head of R and D at the time.

[9] Q: And, what were the EEG studies [10] that he was reviewing? I'm not sure what those are.

[11] A: Well, Frank Gullotta's work.

[12] Q: All right.

[13] A: Again, he was, and let me clarify, [14] because he was not reviewing the studies. He was [15] review - He sat in a presentation review, and he was [16] reviewing the presentation. In other

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words, this is [17] the program. So it was not a detailed technical [18] review.

[19] Q: Whose presentation was he [20] reviewing?

[21] A: That's not clear. But it had, it [22] appears that Dr. Dunn was certainly involved in it. It [23] could have been all of Dr. Dunn's presentation, or it [24] could have been he did an introduction and the [25] different people that were heads of the different

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[1] projects did their parts. It just is not clear.

[2] Q: All right. Do you remember any [3] comments that he made about the compensation projects?

[4] MR. FOWLER: I'm sorry. He?

[5] MR. CRANDALL: Meaning Bernston.

[6] MR. FOWLER: Object to the form of [7] the question.

[8] A: Again, I did not memorize this [9] document, and I have seen a lot of documents. So I'd [10] hate to be specific. But, as I recall, he was saying [11] that it was very variable, but I don't recall, [12] specifically.

[13] Q: Okay. How long is the memorandum [14] that you saw Monday?

[15] A: Several pages. Maybe three.

[16] Q: Did you look at any other specific [17] documents on Monday, aside from this one?

[18] A: I believe there was one other, [19] but, as I said earlier, I can't specifically remember [20] exactly what that was.

[21] Q: Can you remember, generally, what [22] subject matter it involved?

[23] A: No. I'm trying to think, and it's [24] a blank right now.

[25] Q: Okay. It may come to light during

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[1] the deposition where you remember. If your memory is [2] jogged, would you let me know?

[3] A: Sure. Sure.

[4] Q: Okay. Aside from these two [5] documents, were you shown anything else?

[6] A: Not that I recall, no.

[7] Q: Okay. Going back to this issue of [8] attorney/client privilege materials, I take it that [9] you were not shown any attorney/client privilege [10] materials, is that true?

[11] A: Not that I'm aware of, no.

[12] Q: All right. And, did Mr. Fowler [13] indicate to you verbally that there were [14] attorney/client privilege, specific attorney/client [15] privilege materials that he was concerned about?

[16] MR. FOWLER: (Addressing the court [17] reporter) Read that back, will you, please?

[18] NOTE: The requested question was [19] read aloud by the Reporter.

[20] MR. FOWLER: Object to the form.

[21] A: I've already, I think, [22] characterized the discussion as one of these things [23] may come up and this is how I'm going to handle it and [24] this is how you should handle it. And so the content, [25]

specifically, wasn't really a topic of conversation.

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(11) Q: Okay. Just so we're specific, that (2) was my recollection from your previous answers, as (3) well.

(14) A: Right.

(5) Q: I just want to make sure that (6) there were no specific attorney/client issues that Mr. (7) Fowler was discussing with you on Monday. And by that, (8) I mean, you know there's this document Dr. Ellis, (9) that says "X." And if it comes up I don't want to you (10) talk about it.

(11) Did he use specific documents or (12) subject matters with you in his preparation or (13) discussion with you on Monday?

(14) MR. FOWLER: Object to form.

(15) A: There was never anything even (16) close to what you were talking about.

(17) Q: Okay. So, it was more an issue of, (18) if this comes up, if you see any document that has a (19) certain nomenclature on it, attorney/client, here is (20) what you should do?

(21) MR. FOWLER: Object to the form.

(22) A: Well, I think it's more of a note (23) what I should do, but this is how I will handle it in (24) the process of the deposition.

(25) Q: Okay.

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(1) MR. FOWLER: Could I interpose for (2) one moment?

(3) MR. CRANDALL: Sure.

(4) NOTE: At this point, there was a (5) recess had from 10:23 A.M. to 10:24 A.M. whereupon (6) the deposition proceeded, viz:

(7) BY MR. CRANDALL:

(8) Q: All right. Are there any other (9) things that you remember discussing with Mr. Fowler (10) and Ms. Nye on Monday, aside from what we've already (11) discussed?

(12) A: As I said, there were other things (13) related to some other things in my general review of (14) documents in the literature, things that I had been (15) putting together in terms of getting ready for (16) testimony. And, you know, we had discussions. I (17) brought up several instances of, you know, I've read (18) this, and, offered to give them copies of those (19) materials.

(20) Q: What were the things that you had (21) read that you offered to give them copies of?

(22) A: Well, there's some recent (23) publications on some work that we funded, for example, (24) at the University of Buffalo by Dr. Bozarth, and I (25) brought those up because I had just gotten the

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(1) reprints. There were some recent studies that we were (2) performing and I brought up and we reviewed some of (3) the preliminary data on those studies. I wouldn't say (4) that specifically related to this. It was a general (5) discussion.

(6) Q: Related to your expertise and (7) expert testimony?

(8) A: In many cases, right.

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(9) Q: Okay.

(10) A: And, there were things like that, (11) several publications.

(12) Q: Okay. Now, this publication by - (13) Why don't we identify, if you can, aside from the (14) Bozarth publication, what other publications you (15) discussed.

(16) A: There was a recent publication on (17) public health, and I promised to get a copy of that. I (18) don't remember, specifically, the title, but it had to (19) do with the economic impact of certain public health (20) issues. There was a document that was - again, I didn't (21) have these with me, but I mentioned that there was (22) being put together a review on compensation that was (23) going to be submitted shortly for publication, and I (24) mentioned that. And there may have been a few others, (25) but, again, I don't recall, specifically.

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(1) Q: All right. I took away from what (2) you just said, then, Three total ones, at least that (3) we have right now, something by Dr. Bozarth, is that (4) right?

(5) A: Right. Two, two, there were two -

(6) Q: Two?

(7) A: Reprints, right.

(8) Q: All right. And then an article on (9) Public Health involving the economic impact of public (10) health?

(11) A: Right.

(12) Q: And then a review on compensation, (13) is that right?

(14) A: That's right.

(15) Q: Okay. Now, you also used the word (16) "recent" studies?

(17) A: Yes.

(18) Q: Are those in addition to what you (19) have talked about a moment ago?

(20) A: Yes, there were some recent (21) studies internally that we were doing, and we talked (22) about those studies, and - Oh, we did talk about the (23) availability of a laboratory report from an outside (24) lab, and so, you know, get that, potentially. So, (25) there were those kinds of discussions.

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(1) Q: Okay. And, what are the recent (2) internal studies that you discussed?

(3) MR. FOWLER: Object to the form of (4) the question. I'm going to object on the basis of (5) attorney/client privilege because those matters don't (6) go to her expert report or testimony. They're purely (7) factual matters.

(8) MR. CRANDALL: Well, let's break it (9) down.

(10) Q: How many internal studies are we (11) talking about?

(12) A: One -

(13) Q: Okay.

(14) A: -that's not complete.

(15) Q: All right. And, without divulging (16) the exact nature of the study, what does the study (17)

have to do with? Can you generally describe its (14) subject matter?

(15) A: Yes. And, if that's okay, I'll be (20) happy to.
(21) MR. FOWLER: No. I'm not going to (22) permit that.

(23) DR. ELLIS: Okay.

(24) Q: Okay.

(25) A: Okay.

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(1) Q: Let me ask you this: Why did you (2) bring up this internal study?

(3) A: Again, it's something where I had (4) been doing work now for - My part of my job is to, I (5) feel, to fill in some of the gaps of knowledge, and I (6) had requested that this study be done, and we were (7) learning some things, and I wanted to inform them of (8) the progress of the study.

(9) Q: Okay. So, you were the one who (10) requested that this study be done?

(11) A: Yes.

(12) Q: For what purpose?

(13) MR. FOWLER: Object to the form.

(14) A: Exhibit 1 just stated the purpose. (15) That part of my job is to fill in gaps of knowledge (16) and I think that this was something that was (17) completely my initiation, and, (18) on some issues (19) that had come up recently in some of the recent cases.

(20) Q: Okay. What was the knowledge gap (21) that you were trying to fill?

(22) MR. FOWLER: I'm going to object to (23) this, as well.

(24) A: Yes. That would go directly to the (25) content.

(26) MR. FOWLER: If I may make a

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(1) suggestion. You can reject it if you'd like. You can (2) ask her if she will rely in any way on this (3) information for expert opinions in this case.

(4) MR. CRANDALL: Well, you're (5) aware.

(6) Q: Let's just get back for a second (7) to the scope of Exhibit 1. Want you to keep in mind, (8) when I ask this question, the following questions: (9) The scope and nature of the opinions about which you (10) may testify at trial. Okay?

(11) A: (Witness nodded her head in an (12) affirmative manner.)

(13) Q: Will you do that?

(14) A: Uh-huh.

(15) Q: Did this study that you (16) commissioned internally to fill a gap of knowledge (17) have anything to do with any of the subject matters (18) that are identified in your expert report as Exhibit (19) 1?

(20) MR. FOWLER: Object to the form of (21) the question.

(22) A: Potentially, yes.

(23) Q: One or more areas?

(24) A: Well, again, one or more areas? (25) Well, it's a study that's specific that could, the

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(1) knowledge of which, I think, could be applied to - It (2) depends on how many areas, how well you break down (3) those different areas.

(4) Q: Okay.

(5) A: If you're going to, - I mean, it's (6) just a study, basic study.

(7) Q: Okay. But, just, with Exhibit 1 in (8) mind, just using whatever breakdown you think would be (9) useful for Exhibit 1, would you identify how many (10) areas, within Exhibit 1, are touched upon potentially (11) by this internal study?

(12) MR. FOWLER: May I ask for a (13) clarification? Are you talking about the areas (14) identified at Pages 2 and continued on to 3?

(15) MR. CRANDALL: No. I'm talking (16) about all six pages.

(17) Q: In other words, let me do it this (18) way.

(19) Let's start there. That's a good (20) suggestion. In other words, there, look at the bottom (21) of Page 2 and the top of Page 3, four basic areas.

(22) A: Well, I'd rather go directly to (23) Page 5 because it best goes to the mechanics of the (24) test by which cigarette manufacturers declare tar and (25) nicotine yields.

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(1) Q: Okay. So that's where the study (2) would be most relevant?

(3) A: Most relevant.

(4) Q: Okay. Would it be relevant to any (5) of the other things about which you may testify as an (6) expert in this case?

(7) A: The only other thing that I would (8) add to that would be, it would involve the impact of (9) a summons on the mechanics of the test by which (10) cigarette manufacturers declare tar and nicotine.

(11) Q: All right. Well, we can take this (12) up later.

(13) MR. FOWLER: Would you want to ask (14) her that question I suggested? I think it's a fair (15) question. It might get us to the end of things.

(16) MR. CRANDALL: No, but you can ask (17) it, if you want.

(18) MR. FOWLER: I will. (19) We've been going for about an (20) hour. Would now be a good time for a break or would (21) you prefer to go on for a little longer?

(22) MR. CRANDALL: Let me go on just a (23) little longer. I'm going to take Mr. Fowler up on his (24) suggestion.

(25) BY MR. CRANDALL:

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(1) Q: Do you anticipate relying in any (2) way at trial on this internal study, depending on how (3) the results turn out?

(4) MR. FOWLER: Object to the form.

(5) A: I would say that if the question (6) came up, I would rely on the data no matter which way (7) the results came out.

(8) Q: What question do you mean?

(9) A: Well, I'm not sure I know what's (10) going to come up in trial, specifically. So, you know, (11) if

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there are issues relating to that that do come up,
(121) I would use all the knowledge I have.

(122) Q: Okay. And, just on Page 5 of your (121) report, you indicate one of the things about which (121) you will testify has to do with the mechanics of the (124) test by which cigarette manufacturers declare tar and (127) nicotine yields, correct?

(128) A: Uh-huh.

(129) Q: And, that internal study clearly (121) has to do with that, correct?

(121) A: It is more related to that, yes.

(122) Q: And that is something on which you (123) expect to testify at trial, correct?

(124) A: Again, my understanding of the way (125) trials proceed is that the Plaintiff put their case

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(121) on first.

(122) If, indeed, that becomes a (121) question, then, certainly, I would expect to be ready to testify on it. If, indeed, it is not a question, (121) then I might not.

(123) Q: Okay. I'm not trying to fence (121) with (121) you too much.

(124) A: Right. Right.

(125) Q: But you do say right in your (121) report, "I will also testify."

(121) A: Right.

(122) Q: Correct?

(123) A: That's correct.

(124) Q: And your expectation right away is (121) that you will testify as to the mechanics of the test (126) by which cigarette manufacturers declare tar and (127) nicotine yields, correct?

(128) A: My expectation is that that is an (121) area that I would be the expert in for this trial.

(129) Q: Do you have any doubt that, you, (121) will testify regarding those things?

(122) A: Again, you know, I answer (123) questions that I understand I don't formulate the applications, (125) So, and my understanding is that.

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(121) you know, I'm not very prepared in terms of (121) understanding precisely what the testimony will be. (121) So, what comes up in trial is what comes up in trial.

(124) Q: Okay. All right.

(125) MR. CRANDALL: We can take our (121) break now. Therefore.

(127) NOTE: At this point, a recess was (121) had from 10:35 A.M. to 10:44 A.M., whereupon the (121) deposition proceeded, viz:

(128) BY MR. CRANDALL:

(121) Q: Dr. Ellis, did you discuss your (122) testimony at all during the break?

(123) A: We discussed one thing and that (124) was, basically, the data or study that I was referring (125) to, and that, basically, that whether or not I would (126) rely on the study that was not complete, and I (127) basically said-- We discussed the status of the data.

(128) Q: Okay. What is the status of the (121) data?

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(128) A: This is a study and data that I (121) requested literally the week before Christmas. So the (122) gathering of the data started the week before (123) Christmas, and I was provided some information very (124) recently. The study is not complete. There are some (125) validation experiments that need to be done before.

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(121) you know, interpretation could be rendered. So, (121) therefore, at this point, it would be premature to, (121) you know, make significant conclusions until some of (124) that work is completed.

(124) Q: And when do you expect that work (121) to be completed?

(121) A: You know, it really depends on how (121) the research progresses. In other words, if there are (121) any issues that come up. We certainly intend to work (121) on it in the next couple of months and then intend to (121) publish it.

(122) Q: Who is in charge of the project?

(123) A: Well, in charge? I requested it. I (124) have a person that is doing the actual laboratory (125) work. It is Dr. Frank Han.

(126) Q: How do you spell his last name?

(127) A: H-S-U.

(128) Q: Was he the one who provided you (121) some information recently about the progress of the (121) study?

(121) A: Yes.

(122) Q: Aside from that, did you discuss (123) anything else during the break?

(124) A: Simply, you know, no.

(125) Q: And, was there anything else about

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(121) this study other than that that you discussed? In (121) other words, have we gone through everything you (121) discussed during the short break?

(124) A: That I recall, yes.

(125) Q: Okay. Is this the only study that (121) you discussed on Monday with Mr. Fowler and Mr. Nye?

(121) A: As I -

(121) MR. FOWLER: Object to the form.

(121) A: Well, I mean, literature, even the (121) literature are studies, so -

(121) Q: Right. Okay. That was a bad (122) question, then. Was this the only ongoing research (123) that you discussed with Mr. Fowler and Mr. Nye on (124) Monday?

(123) A: Technically, to your question, (124) yes.

(127) Q: Okay. But you had some hesitation, (124) therefore, -

(123) A: Well, I already mentioned it. (124) There was a laboratory report that we discussed. So, (121) that was-- that was also discussed. But that was a (122) related study, but not this study.

(126) Q: Okay. I'm sorry, because that went (121) right past me. So, -

(128) A: Okay. All right.

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111 Q: What is the related laboratory 123 report that you discussed?

112 A: Okay. We had done a study last 141 summer and this fall and had sent the cigarettes to an 142 outside laboratory. And the thing that we discussed 143 was the report that came from that laboratory. 171 Because, when I received the report after 144 Thanksgiving, the report indicated that I needed to 145 get permission from the laboratory in order to copy it 146 or use it in any way. And, so, we discussed the legal, 111 how we would go about doing that. And so that was the 112 main one; that was one topic that was discussed.

113 Q: Okay. And, can you identify what 144 this report covered? In other words, what is it we're 114 talking about?

115 A: It's a laboratory report that was 171 done by a laboratory called Lab Stat with Dr. Rickett, 141 and we had asked him to do some pH of smoke 142 measurements and on five different cigarettes that we had provided him.

121 Q: Why?

122 A: It was a validation study for our 123 own internal work.

124 Q: And that report was produced 125 some time after Thanksgiving?

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111 A: That's correct.

121 Q: And why did it come up in your 123 discussion with Mr. Fowler and Mr. Nye on Monday?

141 A: Well, I said, we were talking 142 about the recent status of epidemiologic and reports and 143 literature reports, and the question came up as to, 171 you know, they don't even have a copy of this right now. So, you know, how do we get this? Should I call 141 Who should call? And how do we intend to use the 142 information?

111 Q: And how do you intend to use the 112 information?

113 A: Well, I personally intend to 141 publish and ask Dr. Rickett to include that 114 information in a publication. And then the question came up as to whether or not, you know, how we would 171 handle a document collection, and the legal side of 141 providing that.

119 Q: Okay. And, when you say handle the 124 document collection, what do you mean by that?

121 A: Well, whether or not the statement 122 that occurred in the report, how we would handle that 123 relative to the legal requirements of providing 124 documents. And I would bring that up in a 141 conversation with Dr. Rickett, which I will.

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111 Q: How long is the report?

121 A: Oh, I'd say it's about somewhere 123 between ten and fifteen pages.

141 Q: And that was commissioned by 142 Philip Morris?

143 A: Yes, it was.

171 Q: And where is Lab Stat located?

Lawyer's Notes

141 A: It's located in Canada.

142 Q: And were you the individual who 143 procured the report?

111 A: Yes.

112 Q: How much did it cost?

113 A: I'd say approximately \$10,000.

114 Q: And, from what you remember of the 115 results, what were the results of the report?

116 A: The results of the report related 171 to the puff-by-puff analysis of PH from five different 142 cigarettes that we had provided, and also the ammonia 143 levels in the smoke.

124 Q: And what, generally, were the 125 results?

126 A: The results generally were that 127 there were not many, if any, significant differences 128 between the cigarettes, except for the Control 104F 129 experimental cigarette.

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111 Q: Now, you indicated, I think, that 121 the study was undertaken for Company purposes, is that 122 correct? Well, let me say it this way. Did your 141 request for the study have to do with any of the 142 litigation?

141 MR. FOWLER: Object to the form of 171 the question.

141 A: Well, yes, it specifically came 142 out of the deposition, quite frankly.

114 Q: Okay. Which deposition did it come 115 out of?

116 A: Dr. Benowitz.

117 Q: And, in other words, how did it 118 come up? Be more specific with me in terms of how it 119 came up.

141 A: Surely. Surely, Dr. Benowitz was 171 deposited, I believe it was either late May or June, and 118 I don't recall what case. And, in that deposition, 119 there was a discussion about the effects of ammonia on 124 nicotine by availability, and the discussion related 125 to whether or not Dr. Benowitz had specific data from 126 different cigarettes and Dr. Benowitz said, no, he 127 didn't have the cigarettes and he would be happy to do the study if he was provided the cigarettes.

128 I was called a few days after

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111 that, and we offered Benowitz those cigarettes. 112 I called him within a week, and we discussed the design 123 of the study, and Philip Morris made the cigarettes. 141 We did our own internal testing, and I offered to have 124 the cigarettes, the data validated in an outside 142 laboratory. This identical report was sent to Dr. 171 Benowitz at the same time.

111 Q: Okay. This Lab Stat report?

112 A: That's correct.

113 Q: Okay. Now, did you have any 114 correspondence with Dr. Rickett in connection with the 124 preparation of the report?

115 A: Yes.

116 Q: Okay. About how voluminous is 117 that?

118 A: I'd say any file on this study is 171 about this thick (indicating), but that includes a lot 119 of

reports, and a lot of, you know, deaths of the same thing. And I would say there were maybe three or four, two or three or four FAXes back and forth, mainly 121 relating to, you know, the procurement of the 122 cigarettes and the cost associated with this study.

123 Q: Okay. Now, you indicated a moment 121 ago with your fingers, it looked to me, about a 124 two-inch thick folder?

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111 A: One-and-a-half, two, yes.

112 Q: And you have that segregated some 111 place?

113 A: Yes, I do.

114 Q: All right. MR. GRANDALL: We'd ask that that 11 be produced, Counsel. We can take that up later.

115 BY MR. GRANDALL:

116 Q: Okay. Aside from this report by 110 Lab Stat and the internal study that we talked about 111 that's ongoing, within Philip Morris, are there any 112 other studies or research that I am going that you 113 talked about with Mr. Fowler and Mr. Nye on Monday?

114 A: I mean, we talked in general about 113 research, but nothing specific that I recall. 114 These were the main issues that I recall.

117 Q: Okay.

118 A: Having been recanted.

119 Q: All right.

120 A: And, again, when you - I'm trying 121 to exhaust your knowledge. If I can, is there of what 122 was specifically discussed, and you have indicated these two are it. And, again, it's fine, but you really indicated, I think, that there were, generally, 123 you discussed research and if there is anything else.

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111 you can remember.

121 A: Yes.

122 Q: I'd like you to tell me.

123 MR. FOWLER: Object to the form.

124 A: Again, we generally discussed research and how 125 research and things like that, 126 but not any specific studies, per se, that I recall, in no. 127 Q: How did the discussion of how to 128 do research come up?

129 A: As I recall, we talked about or I 130 actually talked about some of the efforts I'm, you 131 know, understanding right now in terms of putting 132 together a research program and how to go about 133 funding research in the future. So, it was a very 134 general discussion. There were no specific studies.

135 Q: Okay. And, how did that 136 conversation come up about putting together research 137 in the future?

138 MR. FOWLER: I'm going to object to 139 this. You can say how it came up, but, in terms of any 140 substance, I'm going to object and instruct on the 141 attorney/client privilege.

142 Q: Okay.

Lawyer's Motion

1251 A: Yeah, I really don't recall how it

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111 came up. It was a general discussion and it might have 112 been related to, you know, the fact that we have a 113 situation now with the settlement that CTR is going 114 and where CLAR is also an issue. And so, you know, 115 the question is, is how are we going to fill the gaps 116 in the future? So, it was a very general discussion. 117 And, I really don't recall if there was anything 118 specific that brought it up.

119 Q: All right. Let's go back, then, to 120 the recent publications that you talked about. I think 121 there was a Dr. Bozarth, two reports from Dr. Bozarth?

122 A: That's correct.

123 Q: All right. Can you tell me a 124 little bit more about those?

125 A: Well, I just received them, but 126 Dr. Bozarth has been funded, specifically, by us now 127 for several years, and there are two of a number of 128 publications that had just come out on some of the 129 work that he had performed relative to nicotine using 130 brain stimulation response. And, the overall 131 conclusion in both reports is that nicotine is of low 132 abuse liability.

133 Q: Okay. Were these reports, they are 134 both published now?

135 A: Yes.

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111 Q: In what journal?

121 A: I don't recall, specifically. 122 Again, I have just received them, so I didn't, I don't 123 recall, specifically.

124 Q: Did you receive them in the 125 journal when it was published or did you receive a 126 copy of the report?

127 A: It was directly from Dr. Bozarth 128 as a preprint, an official preprint of the article. 129 So, I'm not sure, I would think that it would be one. 130 I'm not sure if it is officially out yet.

131 Q: Okay. And, I take it that these 132 are materials upon which you will rely as trial?

133 A: Potentially.

134 Q: Okay.

135 MR. GRANDALL: I'd ask that they be 136 produced, Counsel.

137 Q: For the record, could you 138 identify, you said two reports and one having to do 139 with brain stimulation response. Was the other 140 different or were they both involved?

141 A: They both involved brain 142 stimulation response. It was, one was more of an acute 143 study and the other one was more of a chronic study.

144 Q: About how long are the articles.

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111 as you recall?

121 A: Oh, three or four pages.

132 Q: And how much funding did Philip 133 Morris give Dr. Bozarth in connection with both of 134 those studies?

Lawyer's Notes

114 A: Well, that's difficult to answer. 117 We've funded Dr. Bozarth now for a number of years, 118 and, as I said before, there are other publications 119 coming out. How much, specifically, went to these 120 studies, in particular, I couldn't guess, because I 121 just don't know.

122 Q: With whom is Dr. Bozarth 123 affiliated?

124 A: He's a Professor or Associate 125 Professor, I'm not sure what status, at the University 126 of Buffalo.

127 Q: Overall, without trying to break 128 it down, how much support has Philip Morris given to 129 Dr. Bozarth over the past five years?

130 A: My recollection is that it's in 131 the vicinity of \$300,000. I would write a proposal and we would 132 evaluate it. It's in the vicinity, I remember figures 133 of about \$300,000.00, but that may be for a three-year 134 period or so.

135 Q: All right. Now, you mentioned an

136 **Page 63**
137 **111** assessing public health, the economic impact on 138 public health?

139 A: That's correct.

140 Q: Can you be, now, more specific 141 with me about that article?

142 A: Again, this was something that was 143 just, have you seen and I have just seen, so, as I recall, this was actually maybe a 144 summary review 145 of it. And I'm not sure it was even out yet. So, I am 146 looking for the actual article myself. Again, this is 147 extremely recent.

148 Q: Okay. Can you be more specific, 149 150 the terms of the public health matter is of the 151 152 article, just for identifying it?

153 A: I really can't. I could not sit 154 there and even identify it for myself right now. I 155 know I have it in my stack. I know what the general 156 conclusion were because someone in my group had taken 157 a look at it and flagged it for me. But I have not 158 specifically read it myself.

159 Q: What were the conclusions in it 160 flagged by your staff?

161 A: Again, it related to public health 162 and the economic impact.

163 Q: Can you be more detailed than

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164 165 other words, let me back into it this way. 166 That was something, this article was something that 167 you brought up at Monday's meeting, is that correct?

168 A: That's correct.

169 Q: Why?

170 A: Because it was a recent article 171 and because it was among the recent things that I have 172 read that I think that might be of interest in some of 173 the cases.

174 Q: Okay. For what, try to describe 175 176 the relevance as you see it of the article to 177 your expected or possible testimony at trial.

178 A: FOWLER: Object to the form.

179 A: Well, it wouldn't necessarily 180 relate to my testimony, obviously. I am not one, an 181 economic expert. But, it was a tangential thing

182 that 183 I think that was of interest and recent, and I wanted 184 to make sure that Mr. Fowler was aware of it. 185 Obviously, economic impacts do relate to legal 186 proceedings, and I think that it was an interesting 187 thing he ought to be aware of. So I would not, you 188 know, again, say that I would be the expert on that.

189 Q: Okay. In terms of the economic 190 impact, were there conclusions about whether the 191 economic impact outweighed its benefits? I mean, was

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192 193 there anything in the way of a conclusion that you 194 remember in the article? A punch line, if you 195 will?

196 A: Again, I didn't have the article 197 myself. I had what I think was an Internet review of 198 it.

199 Q: I understand that.

200 A: And, the overall flag was, this 201 has, is an interesting article relevant to the 202 economic impact of public health issues.

203 Q: Okay.

204 A: So, that's the best I can 205 summarize it right now.

206 Q: Okay. And then you said, I think, 207 208 there was an additional review on compensation, is 209 that correct?

210 A: Yes.

211 Q: Can you be more specific about 212 that?

213 A: Yes.

214 Q: Okay.

215 A: There is a review that was put 216 together associated with CONESTIA, which is a tobacco 217 industry, a worldwide tobacco industry technical 218 organization. And one of the—The Scientific 219 Advisory Board had asked someone to put together a

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220 221 review of the literature on compensation, and the 222 review is that, and what I saw recently was a draft 223 of the publication, because it clearly stated the 224 intent was to submit this for publication and it may 225 have already been done.

226 Q: And with this have a bearing on 227 your testimony at trial or possible hearing?

228 A: Well, I think, I mean, you know, 229 quite frankly, what it is, is a review of the 230 literature, and I reviewed the literature myself. So, 231 there are relations, but, you know, I think it's a 232 review of the actual literature.

233 Q: Okay.

234 A: There's nothing new, that I 235 understand is new there.

236 Q: Okay. And, with this journal 237 article, do you intend to add it to the list of 238 publications that you have relied on or reviewed in 239 connection with forming your expert opinions?

240 A: Once it is published and I have 241 had a chance to thoroughly review the final 242 publication, I might, yes.

243 Q: Okay. And you have a draft of it 244 right now?

121 A: I have a draft.

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111 Q: Okay.

112 MR. CRANDALL: I ask that that be 111 produced, also.

113 Q: Just backing up to the public 11 health article or summary or assessment of it that you 11 saw on the Internet, is that something that you, a 117 prisoner or a document, that you still have in your 117 possession?

114 A: Yes.

115 Q: How many pages is that?

111 A: I would say it's five or six or 112 less.

113 MR. CRANDALL: I'd ask that that 114 either be identified or produced, as well.

114 A: All right. Getting back to 114 Monday's meeting with Mr. Fowler and Ms. Nye, aside 117 from the items that we have - Oh, you also discussed 117 exhibit preparation for that trial, is that correct?

115 A: Yes.

116 Q: Which other trials?

111 A: None, in particular.

112 Q: All right. And, when is that trial sched- uled?

114 A: It's ongoing right now.

113 Q: Okay. And, you're expected to be 1

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111 possible expert witness in that case?

112 A: Yes.

113 Q: On issues that parallel, to some extent, the issues in this case?

114 MR. FOWLER: Object to the form.

115 A: Again, I would assume so, yes.

116 Q: Okay. Well, I don't want you to assume. Were you told when it was you might testify in in that case?

114 A: Well, to the extent that 111 I understand that the trial will resume next week, that 112 the Plaintiff are expected to submit their part of 113 the case within the next couple of weeks, and 114 I should be turned over to the 115 before the end of 115 January, that's what I understood.

116 Q: All right. And, did you do an 117 expert report for the Eagle case?

115 A: Yes.

116 Q: While it wasn't identical to the 121 expert report in this case, did it cover many of the 121 same issues?

121 MR. FOWLER: Object to the form.

121 A: Yes, I would expect it did, 124 because it is in the category of the four that 124 mentioned that occurred recently.

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111 Q: Okay. And what did you discuss 121 about expert exhibit preparation for the Eagle case?

111 A: Well, I have a meeting in the next 114 two days in Philadelphia, and we talked about the fact 115 that that, you know, we, you know, that meeting was 115 going to occur, that over the holidays I had

Lawyer's Notes

got a 117 notebook sent of some of the demonstrators that we 117 had worked on for the last two or three months, and 117 that we would continue to work on those 117 demonstrators.

111 Q: Okay. There are a notebook of 112 demonstrative exhibits that you are working on for the 113 Eagle case?

114 A: That's correct.

115 Q: Are they for the entire case or 116 the ones that are relevant to your testimony only?

117 A: They are ones that are relevant to 117 my testimony only. I have, again, worked for the last 117 two months, at least, in terms of outlining the 121 documents, the important references and the important 121 points.

121 Q: About how many exhibits are 121 contained within this notebook?

121 MR. FOWLER: Now, I'm going to 121 object because I think this begins to invade the

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111 province of the attorney/client privilege. I'm not 121 involved in the Eagle case. I don't know the nature or 117 substance of these exhibits and so, given the lack of 117 relevance to this case, I'm going to instruct the 117 witness not to provide any substance or other detail 117 about those exhibits.

117 MR. CRANDALL: Okay. Well, you can 117 interpose your objections to my questions as I go and 117 can instruct not to answer.

118 Q: How many exhibits are there?

111 MR. FOWLER: I just made that 112 objection.

113 MR. CRANDALL: All right.

114 Q: Do the exhibits involve, do the 115 exhibits illustrate your testimony with respect to 116 your scientific knowledge about smoking and health?

117 MR. FOWLER: Object to the form of 118 the question.

115 A: I would say the best 121 characterization is very few of them do.

121 Q: Okay. Do they pertain to 122 scientific knowledge about human smoking behavior 123 including the role of nicotine in such behavior?

124 A: I would, again, say very few of 124 them do that, too.

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111 Q: Do they pertain to historical and 112 current activities in research and development at 113 Philip Morris, including research conducted by or for 113 Philip Morris in the areas of smoking and health and 113 human smoking behavior?

114 A: I think that that's more--that and 117 cigarette design and development over the years are 117 the topics that the exhibits largely cover.

115 Q: That was going to be my next 116 question. So, let me just--I will phrase it this way 111 and maybe you can answer. The design and construction 112 of cigarettes, including the size-of-the-entire 113 cigarette design, is that a topic of those exhibits?

114 A: Yes.

115 Q: And, did you help prepare these 116 exhibits yourself?

Lawyer's Notes

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(1) animation, I'm not sure. Some of I would say (2) relatively few of them are animated. Maybe five.

(3) Q: Okay, just describe generally, (4) if you would, the types of exhibits that you expect to (5) rely on in Eagle.

(6) MR. FOWLER: Objection. Could you (7) be more specific with regard to types and also rely?

(8) Q: Well, okay. I'll rephrase it. (9) What other types of media will you (10) use for showing exhibits?

(11) A: Well, media-

(12) Q: I'll withdraw it. Are most of the (13) other exhibits poster board exhibits?

(14) A: There may be one poster board (15) exhibit that I know that we have worked on. I would (16) say the other exhibits, largely, are documents.

(17) Q: And you just enlarged documents?

(18) A: No, not enlarged. It would be the (19) actual documents which would be the basis for some of (20) these other exhibits.

(21) Q: Okay. When you say documents, I (22) understand that to be that you take a preexisting (23) document and then you blow it up, but take it you're (24) referring to it in a different sense?

(25) A: Well, again, you know, I have used

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(1) documents that have been provided to bas-
ically (2) formulate these demonstrators. So
documents either, (3) internal documents or
documents in the literature, (4) that have been,
you know a book, form the basis of (5) these
summaries so that the actual slides or (6) dem-
onstratives are more summaries of actual doc-
uments. (7) So there may be actual situations where
we would use (8) the actual documents. But, then,
explain it in the (9) form of a demonstrative.

(10) Q: Okay. So, there is, one poster (11) board,
some slides, and some audio visual exhibits?

(12) A: Audio visual? I don't know of any (13) audio.

(14) Q: Okay. But there are some -

(15) A: Unless they've gotten flacker (16) since the
last time I saw it.

(17) When you translate some of these (18) dem-
onstratives from a computer into a notebook you
(19) lose a lot. I have had even troubles in trying to
(20) correct and modify some of these things,
when you (21) don't actually see it, which is the
way we've had (22) personal meetings. So right
now, to my knowledge, (23) there is no audio.

(24) Q: Okay. So, the three types, the (25) principal
types of exhibits would be video, slides and

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(1) one poster board?

(2) A: I would say computer-generated (3) dem-
onstratives with some animation. There was one
(4) larger poster-board-type of demonstrative, and
I would (5) say the rest were documents.

(6) Q: Okay.

(7) A: At this point.

(8) Q: Okay. And do you have copies of (9) those
exhibits in your possession, now?

(10) A: Absolutely.

(11) Q: And, are these exhibits that you (12) might
rely on in this case, as well?

(13) MR. FOWLER: Object to be the (14) form.

(15) A: I have no idea.

(16) Q: Really? Why is that?

(17) A: Well, as I said, I don't know -

(18) MR. FOWLER: Object to the form of

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(19) the question.

(20) A:--what questions I will be asked, (21) whether
or not they're similar topics that will come (22) up
in this case. I know that there are certain issues, (23)
because we're close to trial in Eagle, that I've
been (24) asked to cover, and I have prepared my
own (25) report, (26) in particular. So, I think that, from
my (27) experience, (28) many times we don't spec-
ifically know what the issues (29) are going to be
and the (30) plaintiffs have put forth (31) their case.
(32) When she has worked (33) on the (34) exhibits
with you?

(35) A: I have had a Dr. Robin Blum (36) help (37) me
with it. I have had Dr. Bill Dwyer (38) help me with it
(39) and (40) there was a firm that does the art
work (41) and (42) two people in (43) San. And, for
some (44) of the (45) meetings, there were two
attorneys present who (46) happened with the
firm, but we've had at least (47) two or three
meetings, all-day meetings, in Richmond and (48)
several (49) communications and iterations of the (50)
demonstrative.

(51) Q: And what is the name of the firm?

(52) A: It has initials, and I really (53) just don't know.

(54) Q: Where are they located?

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(1) A: One individual is located (2) in Washington
and one individual, as I understand it, (3) is located in
Chicago.

(4) Q: Do you know the names of the (5) in-
dividuals or not the firms?

(6) A: I have been talking about the (7) demonstrative
firm, (8) but I don't know the name of the firm.

(9) Q: The demonstrative firm.

(10) A: I know the first name of the woman (11) in
Washington is Robin, and I don't even recall the
(12) first name of the other person in Chicago.
right now.

(13) Q: Are these exhibits animated (14) exhibits? In
other words, are they audio video?

(15) A: The name of them are animated.

(16) Q: What do the animated exhibits (17) cover?
(18) MR. FOWLER: I'm going to object (19) and
instruct the witness not to answer that question,
(20) based on the attorney/client privilege and
work (21) product privilege.

(22) Q: Okay. How many animated exhibits (23) are
there?

(24) A: Well, I certainly haven't (25) counted. I
would say, you know, and some of the (26) slides
project. Whether or not you would call that

Lawyer's Notes

118 A: Yes.
119 Q: All right. And, do they fit in one 120 notebook?

121 A: Well, let me back up a little bit, 124 because the demonstratives that we've worked on with 125 this firm fit in one notebook. There are exhibits that 126 I would say, you know, would be documents. They fit 127 into very big notebooks. So they're different kinds of 128 exhibits.

129 Q: Okay. So, you have the 130 demonstratives in one notebook and then the other 131 exhibits might fit in another large notebook?

132 A: Yes.

133 Q: Two large notebooks. Okay?

134 A: Yes. (The witness nodded her head in an affirmative manner.)

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135 Q: So, there would be three, four, 136 notebooks?

137 A: Yes.

138 Q: Is it accurate to say that about 139 the exhibits in these three notebooks pertain to the design construction of cigarettes including the name 140 of the art, in cigarette design or historical and in current activities and research development at Philip 141 Morris? In other words, 142 is that correct?

143 A: Yes, there are any exhibits in the 144 three notebooks, we've just identified that fall 145 outside the designated areas of your anticipated 146 testimony in this case? And, if I want to answer the 147 question, just look at the bottom of Page 2 and the 148 top of Page 3 in the subject area.

149 MR. FOWLER: Object to the form.

150 A: Yes, know, to the best of my 151 knowledge, again, just receiving this notebook, the 152 latest version of them would be 153 revised to those two topics that you just mentioned.

154 Q: Okay. Well, we'll take this up 155 after the deposition.

156 MR. CRANDALL: I'd ask that those 157 three notebooks be produced, though.

158 MR. FOWLER: We would, of course.

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159 I'll object to the production of those.

160 MR. CRANDALL: I understand.
161 Q: Now, we got on this subject 162 talking about your meeting Monday with Mr. Fowler and 163 Mr. Nye. Having gone through this discussion of 164 exhibits, can you be any more specific with me about 165 what was discussed with Mr. Fowler and Mr. Nye on 166 Monday about exhibits?

167 A: Very, very little. The fact of the 168 matter is that I have, as I indicated, two days in 169 Philadelphia, and it was just a matter of we have 170 those two days, and this is where we are with the 171 exhibits, and we'll be working on them in the next 172 couple of days.

173 Q: Are Mr. Fowler and Mr. Nye working 174 with you in connection with those exhibits?

175 A: They have not been, specifically, 176 Mr. Nye will be at the meeting in the next two days.

177 Q: All right. Now, going back to 178 Monday's

meeting. Are there any subject matters that 179 were discussed at the meeting that we have not covered 180 in your deposition testimony today?

181 A: Not that I can recall.

182 Q: And I know that you said that 183 there was one document that you couldn't remember that

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184 you looked at. Having gone through this meeting in any 185 more detail, has it jogged your memory as to what that 186 document might be?

187 A: No.

188 MR. CRANDALL: I would ask anyway, 189 Counsel, that that document be produced, as well, the 190 one that the witness can't recall.

191 MR. FOWLER: Of course, I would 192 object to that. I'll tell you, though, for your 193 information, it's on your exhibit list.

194 Q: Okay. Well, maybe that way, if you 195 want, you mean on the disclosure list, her reference 196 list?

197 MR. FOWLER: No, on Plaintiff's 198 exhibit list.

199 MR. CRANDALL: Oh. Why don't you 200 just tell what it is?

201 MR. FOWLER: Because that might 202 reveal any mental impressions and I'd hate to do that.

203 MR. CRANDALL: Okay. I ask that it 204 be produced.

205 MR. FOWLER: We would, of course, 206 object to that.

207 BY MR. CRANDALL:

208 Q: Have you ever testified, Dr.

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209 ELLIS, in a trial?

210 A: No.

211 Q: You expect you may in the Engle 212 case, however?

213 A: Yes.

214 Q: Are there any other scheduled 215 trials where you expect you may testify, aside from 216 the Engle and this one?

217 A: Yes.

218 Q: Which trials are those?

219 A: Henley.

220 Q: I'm sorry?

221 A: Henley and Kearney.

222 Q: And are there trial dates in those 223 two cases?

224 A: Yes. I believe Henley starts next 225 week in San Francisco, and Kearney starts at the end of 226 January in Memphis.

227 Q: Now, have you done any trial 228 preparation in connection with your testimony in the 229 Henley case?

230 MR. FOWLER: I'm sorry, 231 (Addressing the court reporter) would you read that 232 question back?

233 MR. CRANDALL: I'll say it again.

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234 MR. FOWLER: Okay.

Lawyer's Notes

121 MR. CRANDALL: That's all right.
122 Q: Have you done any trial 123 preparation in
124 connection with the Henley case?

125 MR. FOWLER: Object to the form.

126 A: I had one breakfast in which the 127 I think it
128 lasted an hour, in which, again, it was a 129 review of
130 what this case was all about.

131 Q: Meaning the Henley case?

132 A: The Henley case.

133 Q: Okay. And with whom was that 134 meet-
135 ing?

136 A: With Bill Ohlmeier.

137 Q: And what about the Karmey case? 138 Have
139 you done any kind of trial preparation in that 140 case?

141 A: Before preparation, no, I was to 142 have a
143 deposition. It was canceled. I think that 144 maybe
145 we were supposed the day before, and had just 146
147 assembled to discuss the case, per se, and maybe
148 we had gone 30 minutes to an 149 lunch before we
150 got a FAX to say it was canceled. So, we had no
151 further discussion.

152 Q: Okay. When did that meeting take 153 place?

154 A: Within the last month. In

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155 December, earlier December.

156 Q: Okay. And who were you discussing 157 in your
158 testimony with when the FAX came in?

159 MR. FOWLER: Object to the

160 A: Again, we were reviewing the 161 nature
162 of the case, per se. I think Mr. Karmey was there, 163
164 and another attorney was there who was actually
165 the attorney that was going to be locally
166 involved, and I really don't recall his name.

167 Q: Okay.

168 A: At the time.

169 MR. FOWLER: Excuse me.

170 MR. CRANDALL: I tell you what, why 171 don't
172 we take another five-minute break here? That 173
174 would be fine.

175 MR. FOWLER: Okay.

176 MR. E: At this point, a recess was taken from
177 11:25 A.M. to 11:37 A.M.; whereupon the 178
179 deposition proceeded, viz:

180 BY MR. CRANDALL:

181 Q: All right. Dr. Ellis, I want to 182 touch on one
183 final point with respect to your Monday 184
185 meeting and that goes back to this Gary Benson
186 191 document that was, I think, produced some-
187 time during the early 1980s, is that correct?

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188 A: Produced or you mean he wrote it?

189 Q: He wrote it.

190 A: Okay. Yes.

191 Q: Okay. Can you identify any more, 192 par-
193 ticularly the date that that document was pro-
194 duced, or and I mean -

195 A: Written.

196 Q: -written? Yes.

197 A: Geez, I didn't really look at 198 that, spec-
199 ically. For some reason, 1983 runs in my 200
201 head, but I'm not sure.

202 Q: Okay.

203 MR. CRANDALL: I'd ask, Counsel, 204 that that
205 document also be identified, if it is 206 something
207 you already have or produced.

208 MR. FOWLER: It's on your 209 Plaintiff's ex-
210 hibit list.

211 MR. CRANDALL: Okay.

212 And, can you identify the date of 213 the
214 document?

215 MR. FOWLER: No. Not that I won't, 216 I can't.

217 MR. CRANDALL: Well, all I would 218 want to
219 do is to confirm that the document - I want 220
221 to do is to confirm that the document is what
222 identify, specifically, what the document is since

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223 the witness can't from memory. And whether
224 it's in producing the document or telling us
225 which exhibit it is or however you want to do
226 that is fine with me, 227 but, that's the issue.

228 MR. FOWLER: Okay, I understand.

229 MR. CRANDALL: Fine.

230 BY MR. CRANDALL:

231 Q: Now, Dr. Ellis, before preparing 232 in your
233 report in this case, did you review the other 234
235 reports from Defendant's experts, that is, the
236 tobacco 237 experts?

238 MR. FOWLER: Object to the form of 239 the
240 question.

241 A: No.

242 Q: And, did you review the reports 243 in pre-
244 pared by Plaintiff's experts?

245 A: No.

246 Q: Do you know who the Plaintiff's 247
248 experts are?

249 A: No. I've already indicated I 250 don't,
251 except for maybe you just implied Dr. Benowitz
252 is or somebody implied that.

253 Q: Okay. And, do you know who the 254
255 Defendant's expert are?

256 A: Other than the ones I've already

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257 listed, I believe Dr. Carthan, Burnley, Scott,
258 Lilly 259 might be involved or at least being
260 depose.

261 Q: Okay. Are you aware of any others, 262 other
263 than those?

264 A: Not specifically, no. I mean, I 265 think there
266 are other fact witnesses. I have no idea 267 who the
268 other experts would be.

269 Q: All right. I want to turn, then, 270 to Exhibit 1
271 which you, said, particularly, your expert 272 report
273 and feel free to refer to it during any 274 questions
275 of you.

276 First, on Page 3, the first full 277 paragraph
278 there, this involves the subject matter of 279 the
280 association, statistical association between 281
282 smoking and lung cancer.

283 Do you have that subject matter in 284 mind?

285 MR. FOWLER: Object to the form.

Lawyer's Notes

119 A: I don't understand your question.
120 Q: I'm just trying to. You cover 121 different things in your report?
122 A: Okay.
123 Q: I'm trying to focus you in on the 124 areas where I'm going to ask you questions, that's 125 all.

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111 A: Okay.
112 Q: I'm now going to question you 113 about the first full paragraph on Page 3 of your 114 expert report.

115 A: Okay.

116 Q: All right. It's your opinion that 117 there is a statistical association between smoking and 118 lung cancer, is that correct?

119 A: Yes.

120 Q: All right. What is your knowledge 121 of that association? In other words, tell me in as 122 much detail as you are able, what that association is.

123 MR. FOWLER: Object to the 124 question. 125 A: Well, the association relates to a 126 number of epidemiological studies that have been 127 performed over the last 20 plus years and that has 128 created data which largely is in the form of a 129 relative risk, and it is based on those studies.

130 Q: Okay. And, what is relative risk?

131 A: Well, it's a term that basically makes into account the number of instances of 132 observations in a control group relative to the number 133 of instances of a certain observation in an experimental group.

134 Q: And when you use the term risk

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135 Q: Factor, do you have in mind any particular relative risk number?

136 A: Well, there are certainly many. As in a matter of fact, it depends on. There is no variability between studies and even between countries in terms of the actual number, and there are many 137 figures that affect the actual number. So, no, I 138 don't definitely. As a matter of fact, I think in that's one of the points that I would make.

139 Q: Okay. I'm sorry, just at the end 140 there you hear me, you said that "that's one of the 141 points that I would make." What's one of the points 142 that you would make?

143 A: Well, there is a lot of 144 variability, that there are a lot of confounding 145 factors, that there are biases in doing these studies, 146 and that there is no absolute number.

147 Q: When you use the term, "bias," how 148 are you using that term?

149 A: I'm using that term in the actual 150 conduct of the study. Frequently, we call "we call 151 it, there are biases in the way the study is set up or 152 in terms of the questionnaires or in terms of the way 153 the data is reported.

154 Q: Okay. So, that's in its, not

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155 pejorative sense, but it's in the sense of, it's in

biased in the sense that the science is not as good as 156 unbiased science?

157 MR. FOWLER: Object to the form.

158 A: This is actually a very 159 complicated area. There are, interestingly enough, you 160 can't do science without certain biases, and some of 161 those biases relate to your previous knowledge and 162 experience and relate to the actual tools that you 163 have. So, for example, you can't see something, 164 you have an analytical tool that only shows you 165 certain things and it is not specific enough. It 166 will then create a bias in what you see in that 167 study. And I am trying to do this in very general 168 terms. But, I really mean this is a very objective 169 way that, in science, there are biases, and they 170 relate to the tools that we have and the way we 171 conduct the study.

172 Q: Okay. Are you familiar with the 173 scientific method?

174 A: Absolutely.

175 Q: What is your understanding of the 176 scientific method?

177 A: Well, generally, the scientific 178 method relates to the fact that there are first

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179 observations, and there is some observation that 180 someone would want to then explore further. Then they 181 form a questionnaire, a hypothesis from that 182 observation. Then, they design an experiment and 183 gather data to either prove or disprove that 184 hypothesis, and then it's an iterative process. Once 185 you go through that, then you develop another question 186 and design another experiment.

187 Q: And, in terms of the scientific 188 method, are there any guidelines or maxims that apply 189 to how the hypothesis testing is undertaken?

190 A: I'm not sure I understand your 191 question. 192 Q: Okay. Have you heard of the term 193 "junk science"?

194 A: Yes, I have heard of the term.

195 Q: What is your understanding of 196 "junk science"?

197 A: Well, it's a very general 198 understanding that it's science that's not 199 appropriately conducted.

200 Q: And not appropriately conducted in 201 what way?

202 A: In any way, I mean, you know, I 203 think, like I said, it's a general term. I think that

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204 it's maybe science that is not objectively undertaken 205 with the best tools available.

206 Q: Okay. So objectivity is an 207 important part of the scientific method, is that 208 right?

209 A: Well, those are two different 210 questions. I think the scientific method and, as I 211 already explained, I think there is bias inherent in 212 any experiment, because we are limited by the tools 213 that we have and what we already know. So 214 you frequently don't want to look for things that you 215 don't know about, but you tend to look for things that 216 you think you know. And,

so, those are certain biases (14) associated with science.

(14) Q: Okay. Then, flip the coin over. (16) What are the hallmarks of good science?

(17) A: I think I've already explained (18) that I think it's being as objective as possible and (19) using the best tools possible.

(20) Q: And, when you say the "best (21) tool," are you talking about analytical tools?

(22) A: Analytical tool. I'm trying to (23) think. I guess statistics would be included in an (24) analytical tool. In a very general sense I would say (25) analytical tools, yes.

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(1) Q: In terms of hypothesis testing (2) under the scientific method, are there certain (3) parameters that (4) whether or not a question is (4) answered, whether a hypothesis is proven or disproven?

(5) MR. FOWLER: Object to the form.

(6) A: Yes.

(7) Q: Let me withdraw it.

(8) A: Yes.

(9) Q: Okay. What is your understanding (10) of confidence levels?

(11) A: Well, that's where I was (12) according to think here. My understanding of confidence (13) levels relates to generally-accepted practice in terms (14) of the accepted values which you would expect. (15) result to likely be accepted or likely to be rejected. (16) As a result of the decisions of that relate to the way (17) the study is designed, because you can design any (18) study to get any result.

(19) Q: Sometimes also referred to (20) as the power of the study?

(21) A: Which? The confidence?

(22) Q: No. Is the ability to detect a result also sometimes referred to as the power of the (24) study?

(25) A: Sometimes, yes. It has to do with

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(1) the number of subjects in (2) the study, the number of observations, yes. It has to do with the power.

(3) Q: And, in terms of scientific (4) hypothesis testing, is it frequently, is the 95 (5) percent confidence level sometimes used as a benchmark (6) for determining whether or not a hypothesis has been demonstrated?

(7) MR. FOWLER: Object to the form.

(8) A: Well, would - The terminology (9) you're using is a little bit different than what (10) I (11) would use. So let me characterize it the way I would (12) do it.

(13) Q: That's fine.

(14) A: The 95 percent confidence interval (15) is an interval that is generally-accepted practice in (16) science. It does not mean that if you design the (17) study up front using, and define your confidence (18) interval up front, is what you think would be (19) significant, that you could define a different one. (20) But, the generally-accepted one

is the 95 percent (21) confidence interval, because, in science, we want to (22) focus on those observations that we think have the (23) highest probability of being real. And, so, we have (24) picked the 95 percent confidence interval. (25) It doesn't mean an observation is

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(1) a 50 percent confidence interval isn't an important (2) one. I will say that. It means, potentially, that your (3) experiment was designed in such a way that, as you (4) indicated, the power was not sufficient to get to the (5) 95 percent confidence interval or your analytical (6) tools were not sufficient to get there.

(7) Q: Let's get back to relative risk. (8) then. You indicated that there was loss of variability (9) in the studies conducted on a relative risk assessment (10) between smoking and lung cancer. Is that correct?

(11) A: Would you repeat that, please?

(12) Q: Sure. I think you said that the (13) studies regarding the association or relationship (14) between smoke and lung cancer had produced lots of (15) variability in terms of relative risk?

(16) A: Yes.

(17) Q: Do you have an opinion as to (18) whether the relative risks associated with smoking and (19) lung cancer are stronger or weaker?

(20) MR. FOWLER: Object to the form.

(21) A: Well, stronger or weaker than what (22) is?

(23) Q: I'll withdraw it. (24) In your Paragraph 3, first (25) paragraph on Page 3, you say you have concluded that

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(1) cigarettes are a risk factor for lung cancer, right?

(2) A: Uh-huh.

(3) Q: Okay. How big a risk factor, in (4) your opinion?

(5) A: Well, okay. In certain studies, (6) it's a strong risk. In other studies, it's not. And, I (7) think that is relevant to some of the other (8) confounding factors, the way the study is designed, (9) the populations looked at, and it is very hard for (10) anybody to really understand the biases for that (11) variability. And the reason for that is because you're (12) looking over a long period of time and do not have (13) adequate ways of controlling for all the confounding (14) factors.

(15) Q: Okay. So that you're saying there (16) is a lot of variability and you get different relative (17) risks, depending on how the studies are set up, (18) correct?

(19) MR. FOWLER: Object to the form.

(20) A: Again, I wouldn't characterize it (21) that way.

(22) Q: Okay.

(23) A: I would say that - I would say (24) that there are many, many studies. There are many (25) studies that have resulted in many different numbers.

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(1) and that, I think, that it's generally accepted

thats many of those differences in numbers, there's no (5) absolute number that you can reflect when you look at (4) the quality of the data. And the reason for that is (4) because, as I've indicated, the studies are basically (4) encompassing a very long period of time, and there is (7) not adequate control of all of the other factors in (4) looking at these subjects.

(11) Q: Okay. But, looking at those many (14) different numbers and given that your opinion is there (11) was no absolute number, do you have any opinion as to (12) the degree to which smoking and lung cancer are (13) associated? In other words, that is, looking at all (14) the studies that you've looked at, and as a scientist, (14) do you have an opinion as to whether there is a (14) strong, weak, or however you want to state it, (17) relationship between smoking and lung cancer? (14) MR. FOWLER: ER: And we're talking (15) about the statistical association?

(12) MR. CHANDALL: Yes.

(12) MR. FOWLER: ER: Okay. Thank you. (12) A: The statistical data from (12) various studies, and some of them indicate it's a (14) strong relationship based on that study and others (15) it's indicated that it's weak relationship.

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(11) Q: Have you made any assessment of (12) which studies you think are more credible than other (15) studies?

(14) A: I think there are certain studies (4) that are clearly more credible in that they have (4) indicated to the degree possible, the number of (7) confounding factors or have a higher power because they have included more subjects. However, the problem in here inherent, and it takes whether one priority in (14) my mind, is that your data is only going to be as good as (11) your tool is and begin with. And, in this case, (12) epidemiology is only going to give you an indication (14) of what to look at, but not going to give you any (14) absolute number, and requires further study in order (15) to make judgment you're making for.

(14) Q: When you say the data is (17) good as the quality you say that you believe that (14) the field of epidemiology, as it exists today, has (15) limitations in it that prevent one from extrapolating (14) and reaching its conclusions?

(11) A: Yes.

(12) Q: Okay. Do you believe that the (14) field of epidemiology today is providing results that (14) should guide public health decisions?

(12) A: I believe that the field of

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(11) epidemiology does provide results that should guide (14) future research and action on the behalf, by the (14) public health community, yes. And, we frequently see (14) that, whether it relates to cholesterol levels or (15) whatever, exercise, all kinds of things. We see those (14) communications occurring all the time, and sometimes (7) those communications begin to conflict with each other (4) because new data is available.

Lawyer's Notes

(14) But, inherent in all of those (14) communications is, there are indications that, until (11) we have more specific experimental data, we will not (14) know for sure.

(14) Q: Okay. Putting, then, this issue (14) now in terms of smoking, do you believe that the (14) epidemiological data vis-a-vis smoking and lung (14) cancer, for example, is sufficient to warrant a public (17) health response by the Government?

(14) MR. FOWLER: Object to the form.

(14) A: You know, I think that the public (14) health response has occurred in terms of warning (12) labels. I think that there has been a myriad of (12) Surgeon General's reports. You know, clearly, I think (14) that those investigations are certainly warranted, (14) that those studies are certainly warranted. I think (14) the issue fundamentally is, as you know, where are

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(11) you going to draw the line in terms of what this data (12) is indicating.

(11) Q: Okay. Where do you personally (14) draw the line in terms of smoking and lung cancer?

(14) MR. FOWLER: Object to the form.

(14) A: In terms of scientifically, I (17) think there is epidemiological evidence that indicates (14) that smoking is a risk factor for lung cancer. I (17) think that in some studies that it's been indicated (14) that it's a fairly strong risk factor. I think in (11) other studies it's been indicated that it's not.

(12) I'm aware of the limitations of (14) epidemiological studies, especially when they're used (14) in cases of chronic lifestyle types of diseases, and I (15) think that the most important pieces of evidence would (14) have to come from experimental evidence, animal (17) studies and other biokinetic studies.

(14) Q: All right. And that last question (14) I asked you when I very clear, but what I - So, let (14) me ask, (11) I come at it this way.

(12) A: Okay.

(12) Q: You're a scientist who has, in (14) fact, an expert who has a knowledge of there being a (14) risk factor between cigarettes and lung cancer, right?

(12) A: Uh-huh.

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(11) Q: Do you personally use that (12) knowledge, say, not to smoke?

(14) A: I can't say that I do, no, (14) personally.

(14) Q: Okay. I'm not sure I understand (14) your response.

(14) A: Well, I occasionally smoke. I (14) mean, I, you know, I don't, I can't say that I do use (14) that specific knowledge not to smoke.

(14) Q: I see. Okay. So, you smoke from (11) time to time?

(12) A: Yes.

(14) Q: Are you a regular smoker?

(14) A: No.

(14) Q: Do you then regard the risk factor (14) as being insignificant?

Lawyer's Notes

117 A: No. I don't regard the risk ¹¹⁸ factor as being insignificant. I regard the risk ¹¹⁹ factor as being an indication that further study is ¹²⁰ warranted or should occur, is occurring, has certainly ¹²¹ been the topic of extensive research for the last 30 ¹²² plus years. No one can say that that's insignificant ¹²³ - no one.

124 Q: Okay. But I'm trying to probe into ¹²⁵ how, if any, the epidemiological data that does exist

¹²⁶ influences your decision to smoke, personally. And ¹²⁷ as you have answered, you have started to answer. I ¹²⁸ think, but I didn't understand it fully, so, let me ¹²⁹ ask this question.

130 Do you believe that the ¹³¹ epidemiological data that exists today is such that ¹³² the ordinary prudent person shouldn't smoke?

133 MR. FOWLER: Object to the form.

134 (Addressing the court reporter) ¹³⁵ Could you repeat the question? Could you read that ¹³⁶ back, please?

137 NOTE: The last question was read ¹³⁸ aloud by the Reporter.
139 MR. FOWLER: Object to the form of ¹⁴⁰ the question. Calls for speculation.

141 A: When I'm having a problem with ¹⁴² that is that the ordinary, prudent person probably ¹⁴³ does not technically understand the epidemiological ¹⁴⁴ evidence. I believe that the ordinary, prudent person ¹⁴⁵ sees the warning label on the pack and that would be ¹⁴⁶ the most obvious piece of information for them to make ¹⁴⁷ that judgment on.

148 Q: Okay. Well, then, let me put it this way. Do you have children?

149 A: Yes, I do.

150 Q: Okay. How old are they?

151 A: Eighteen and twelve.

152 Q: Have you had discussions with them ¹⁵³ about smoking and whether or not they should do it?

154 A: Briefly, yes.

155 Q: And, what have those discussions ¹⁵⁶ entailed?

157 A: Well, frequently in the schools ¹⁵⁸ there is a program, and they have come home and ¹⁵⁹ discussed some of the information that they have learned from that program. My understanding ¹⁶⁰ from my ¹⁶¹ children is that right now neither one of them ¹⁶² would ¹⁶³ even consider smoking. And, that is ¹⁶⁴ how I think ¹⁶⁵ that individuals and children especially need to make ¹⁶⁶ decisions for themselves when they're old enough to do ¹⁶⁷ so.

168 Q: And, in your opinion, what age is ¹⁶⁹ that?

169 A: I think -

170 MR. FOWLER: Object to the form.

171 A: -as a parent I would say that it ¹⁷² depended on the child and their level of experience ¹⁷³ and information.

174 Q: Have you counseled your children ¹⁷⁵ one way or the other in terms of whether they should

11) or should not smoke?

12 A: To be honest, again, I think that ¹³ to better characterize my interaction with my children ¹⁴ is in the context of their, the information they've given, the questions they've asked. We've had ¹⁵ a general discussion and it had been clear to me in that ¹⁶ process that they had no intention of smoking.

13 Q: But, did you ever impart to them ¹⁴ any opinions on the subject?

14 A: No. We don't have technical ¹⁵ discussions.

15 Q: Well, no, I don't mean, no, I'm ¹⁶ just talking about technical discussions. I'm just ¹⁷ talking about whether you've said, kids, child, I ¹⁸ think you shouldn't smoke. Or have you ever given any ¹⁹ opinion on the subject to them as to whether you think ²⁰ it's a good idea or a bad idea?

16 A: I've never had the opportunity ¹⁷ because I don't think they think it's a good idea. If ¹⁸ it ever came up, I will tell you, I don't think ¹⁹ children should smoke, absolutely not.

17 Q: Why not?

18 A: I think, as I indicated before, ¹⁹ that it is a lifestyle choice that would need to be ²⁰ made by an adult that had appropriate information.

19 Q: Okay. Now, then, let's take an ²⁰ adult, and I am trying not to be too personal. I don't ²¹ know whether there are any other adult loved ones ²² within your family structure where you might have had ²³ a discussion about smoking or not smoking, but I'll ²⁴ keep it in the abstract for the moment. Do you believe ²⁵ that the epidemiological data that exists today is ²⁶ sufficient to cause an adult to make a decision about ²⁷ smoking that is informed?

19 MR. FOWLER: Object to the form.

20 A: I have to go back to the same ²¹ premise that I don't think any consumer is really ²² going to be looking at epidemiological data. So, I ²³ really can't answer that question.

24 Q: All right.

25 A: Because, I don't think that the ²⁶ normal person would even understand or have access, ²⁷ normal access, to those studies.

26 Q: Okay. Do you think that it is ²⁷ correct that the Government should put warning labels ²⁸ on cigarettes?

27 A: I think that that is totally ²⁸ appropriate, yes.

28 Q: Do you think that more should be ²⁹ done by the Government, other than warning ³⁰ labels?

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19 MR. FOWLER: Object to the form.

20 A: I think that the warning labels ²¹ that are present are certainly significant warning ²² labels. I don't see, really, anywhere where I would ²³ necessarily adjust the warning labels. I think they're ²⁴ very, very polished.

25 Q: Now, I want to go back to this ²⁶ risk factor

Lawyer's Notes

and maybe we've exhausted the issue on this subject. Maybe we haven't. But, recognizing 119 that there are a wide variety of risk factors and many 111 different numbers, have you, yourself, gone through 123 those studies and come to a conclusion as to your own 121 assessment of the relative risk of cigarettes and lung 114 cancer?

119 A: I certainly have gone through 119 studies, and I certainly have gone through many 117 reviews of the practice of epidemiology to know, as I 114 indicated before, that you can't come up with a single 119 number or an absolute figure.

121 Q: No, and I understand that. I 121 understand that. If you would agree, would you not, 121 that scientists in the field of epidemiology and 123 clinicians do come to conclusions in their own minds 124 about whether they think there is a strong or weak 125 association or relationship between cigarettes and

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111 lung cancer?

121 Absolutely.

121 Q: Okay, have you done that? 119 Absolutely - Well, certainly, there are many studies that indicate that smoking is a 114 risk factor. There are many studies. There are 117 variety of risk factors. There is sufficient evidence 111 to indicate and there certainly has been, as I 111 indicated for the last 30 years of some significant 114 work, incredible amount of volume of work, data, generally a huge amount of studies done, an incredible 117 volume of work to try to follow up on those risk 115 factors. I try to understand the disease called 114 cancer, to try to understand the mechanism and 115 potentially, then find a cure.

114 So, saying that this is not, I 117 mean, I think it's extremely significant in terms of the volume of work. I think it is important. I think 119 that the warning label that says "quitte cigarette 123 smoking causes cancer, could not be more simple or 121, any, you know, more severe than it says. Whether or 122 not that's accurate, you can't say that there's no epidemiological evidence.

124 Q: Okay. But, you know, I'll get to 121 that in a second. I think sort of a causation, and

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111 mechanism issue. But, I'm still now focusing on 121 epidemiology. Would you agree that, in the field of 119 epidemiology, there are risks, relative risks, and 114 considered in the profession to be standard above 119 which there is a strong association or relationship 119 below which there is not?

117 MR. FOWLER: Object to the form.

114 A: There is in the literature about 119 epidemiology, and the ability of epidemiology to 119 relate to causation, some discussion of the absolute 111 value and whether or not it's in excess of a certain 113 number. What happens is, is that the higher the value 113 or relative risk that you have, it's less likely that 114 the association is, there's going to be an impact of 114 confounders or, no, there could be an impact of 114 confounders, but biases would be less. So, yes, I 117 mean, there are those things in the literature.

114 I think it's Becero and Day have 119 some discussion of that in particular. And, generally 119 speaking, relative risks greater than five are 121 considered to be strong relative risks. And, there 121 are certain epidemiological studies that indicate that 123 the relative risk is greater than five. There are 124 others that indicate the relative risk is not greater 121 than five.

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111 And, therefore, you know, you 121 could come to a number of different conclusions. And, 119 I guess my point is, is that the main conclusion that 114 you need to come to is that this area certainly 119 warrants and has received considerable investigation 119 and attention.

117 Q: All right. Do you use five as a, 119 personally, as a number where you would say that there 119 is a strong associational relation of strong relative 119 risk?

111 A: Again, I would not want to 113 characterize using any particular number when you have 113 data of the nature of epidemiological data and all of 114 the associated biases and confounders. However, as a 119 general rule, you look at a number that's greater than 114 5, and if you consistently got responses that were 117 greater than 5, you would begin to say this is a very 119 strong association, and is consistently a strong 119 association.

121 If you have a myriad of results, 121 you might see something different. But, the bottom 121 line is, is for epidemiology, in itself, unless you 123 have a situation where you are specifically seeing a 124 very unique type of disease, and there are certain 125 cases, vinyl chloride being one of them, where you can

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111 specifically and closely associate an exposure with 121 the disease. That would be a different case. So, there 119 are certain criteria called the Bradford Hill criteria 119 that one would use. And, those criteria are very 119 important.

119 Q: Now, Bradford Hill criteria 119 meaning identifying certain situations where, 119 notwithstanding an absence of mechanism of disease, 119 that epidemiology itself provides a link to causation?

114 MR. FOWLER: Object to the form.

111 A: Yes. I'm not sure I really 119 understand your question.

113 Q: I'm sorry. I didn't understand 114 your response, so it was a question that may have been 119 answered by a misunderstanding.

114 A: Okay. I can tell you that the 117 Bradford Hill criteria were developed to categorize 119 certain epidemiological data and particularly related 119 to the real use of epidemiology which related to viral 121 and bacterial types of diseases which had a very 121 short--were acute diseases not chronic diseases. In 121 those situations, you can more closely relate an 121 exposure to a response.

124 When you get to chronic diseases, 125 however, you have a 20-year history with many factors

111 being involved in the genesis of lung cancer or any 121 other cancer. And these confounders then become 131 extremely difficult to control in any epidemiological 141 study. And, therefore, the ability of epidemiology to 151 provide an absolute answer or strength or even a 161 definitive indication of causation in a chronic study, 171 I don't think is, again, it's a tool that is not 181 appropriate for chronic studies and causation.

191 Q: Okay. When you say, right at the 191 end you said, it's a tool that's not appropriate for 201 causation, regarding long-term studies. That led me to 211 believe, and that may have been the case. 221 I just 231 question, that when you have a short exposure and 241 response period, then epidemiology can be used?

251 A: Well, sure. In certain exposures 261 of individuals and environmental situations, you look at 271 where those people have been, you know 281 the history 291 we've had plagues and we have 301 Hantavirus with rodents 311 in New Mexico or elsewhere and you have certain studies 321 with food, food poisoning and those kinds of studies.

331 Those are epidemiological studies. You look at 341 exposures and opportunity for exposures and the result 351 is a disease that's associated with that exposure.

361 And, frequently, there are 371 similar types of results in terms of 381 chronic diseases. Vinyl chloride, for example, 391 yields a very specific tumor. So even though 401 it's chronic study, it has a very specific response.

411 of the chronic disease. Vinyl chloride, for example, 421 yields a very specific tumor. So even though 431 it's chronic study, it has a very specific response.

441 Then another exposure that 451 results in very specific responses. Those are 461 lung cancer, we don't get a specific 471 response.

481 Q: Okay. And just to follow up on 491 those. Say the Hantavirus, as an example. Do we, 501 meaning specificity, understand now, the mechanism 511 which the Hantavirus does its deadly work?

521 A: Well, another factor with viruses 531 is that you can go back and you can see 541 the virus in the humans and then go back to the animals and find that same 551 virus and then certainly 561 provides 571 experimental and mechanistic information. You can then 581 take that virus and then infect other animals and get 591 that same response. That is very important in terms 601 of developing the background experimental data to prove 611 that there is a real association.

621 Q: And when you say real, you said 631 association, but did you mean real causality? Because 641 you get a real - You're not saying that statistical 651 work with smoking and cancer is not real?

661 MR. POMER: Object to the form.

671 A: Okay.

681 Q: Okay. Right.

691 A: I'm saying it is a statistical 701 association that's based on a set of observations. 711 Whether

or not the appropriate observations or 721 controls have been used in those studies may affect 731 whether or not the association is a real association. 741 Okay?

751 Q: Okay.

761 A: I'm not saying that the relative 771 risk is not real but what I'm saying is that the 781 relative risk does not indicate a real association.

791 Q: Okay.

801 A: -unless you have further data. 811 Okay.

821 Q: Now, in the situation, in the 831 examples you used, the plague, vinyl chloride and 841 Hantavirus.

851 A: Uh-huh.

861 Q: Those were epidemiological studies 871 that resulted in causality, is that right, being 881 established in a scientific sense?

891 A: Yes.

901 Q: Okay. So, from that, it is 911 possible that epidemiology can, in certain

921 circumstances, give the causality answer?

931 A: Absolutely not. I made a point, in 941 all of those studies, that additional experiments have 951 been done outside of epidemiology. So, in vinyl 961 chloride, the histology of the tumor was unique. In 971 the Hantavirus, there were studies that went back to 981 isolate the virus and infect animals. So you have 991 additional experimental evidence.

1001 Q: Okay. I understand.

1011 A: Okay.

1021 Q: I understand your testimony now. 1031 I did not before.

1041 A: Okay.

1051 Q: So, in these studies, you're 1061 saying the Hantavirus plague, vinyl chloride, that the 1071 epidemiological studies would be of more value than, 1081 in any, of cancer, but you still need complementary work 1091 in other fields to establish causality?

1101 A: I would modify that. I think 1111 epidemiology is of the same value. I think that in 1121 all cases it pointed to the kinds of studies that 1131 needed to be done. And I consider that the same 1141 value, whether it's lung cancer in smoking or whether 1151 it's Hantavirus and that particular disease. It tells 1161 you, this is something you need to look at, and.

1171 Indeed, those studies have been done in those other 1181 cases. There certainly have been studies done in 1191 smoking and lung cancer and those are not 1201 yielding 1211 consistent results, as we all know.

1221 Q: All right. So, as you sit here 1231 today, knowing what you know about the relative risks 1241 that have been shown in various studies, can you say 1251 anything, one way or the other, in terms of the 1261 strength of the associational relationship between 1271 cigarettes and lung cancer, other than 1281 cigarettes are 1291 a quote risk factor?

1301 A: I can say that in certain studies 1311 it has been identified as a strong association.

1321 Q: Do you, and I don't mean to 1331 interrupt

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you, but just so we don't keep dwelling on 114 this same, show the same field. Do you ascribe greater 117 credence to certain studies than others such that you 121 could say, well, Mr. Crandall, in my opinion, it's a 124 strong, associational relationship, because A, B, and C 127 studies, which I think are good, show 130 it? Or, Mr. 131 Crandall, in my opinion, I think it's a weak 132 associational relationship, because the D, E, F 135 studies, which I think are particularly good, show 138 there is no relationship?

139 In other words, do you have an

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111 Independent opinion as to how strong the associational 124 relationship is?

125 A: We're discussing two different 128 windows of information. Within the tool of 131 epidemiology, there are certain studies that are 134 considered to have better controls, have more subjects, and, obviously, you would like more credence in some of 137 those, those indications of relationship. However, I keep beating you try to bring me into this other 140 window.

141 Q: Yes.

142 A: And I am going to separate out 145 completely an epidemiology window. Other than that 148 being a window that indicates that you have to do 151 additional experiments in this other window. So, yes, 154 you can say that certain studies are better than 157 others. I am not going to say they are 160. The 163 fact, 164 that, you may indicate that there is a stronger 167 relative risk than others. And that's the both studies 170 in terms of smoking and lung cancer, worldwide. In 173 certain populations, the relative risk is they're 176 still good studies--but the relative risk is rather 179 low.

180 In other studies, in certain 183 populations, good studies, the relative risk is

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111 higher and, with that kind of variability and with 124 independent tool that physicians bring in within the 127 epidemiology box, you don't have the ability to make a 130 conclusive statement whether or not 133 is a real situation, 134 that is a nonstatistical association, type of 137 situation, that there is an actual relationship 140 between an exposure and a response, okay. And that is 143 done with animal studies.

144 Q: Okay. Well, we're not one of the 147 woods yet. Why are you reticent, as you say, to go 150 through that window? In other words, why are you 153 reticent so, yourself, open about the associational 156 relationship?

157 MR. FOWLER: Object to the form. I 160 think that that mechanistic her testimony, if I 163 heard it right.

167 A: Yes, I would--

168 Q: Well, it may. What I'm trying to 171 get at is, I have asked a number of ways, and we 174 have gone around and around, and, as I understand, you 177 keep coming back to the only thing that the 180 epidemiological studies have done to date is to show 183 that cigarettes are a risk factor for lung cancer, but 186 we need to do more research to show causality. And 189 I'm not trying to sum-

marize it. That's the gist of

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111 where you're going. And my question is, but, do you 124 have an opinion as to how strong the associational 127 relationship is? As a matter of statistics or as a 130 matter, not as a matter of causality, but as a matter 133 of associational relationship?

134 MR. FOWLER: Object to the form.

137 Q: Is it strong or weak?

138 A: And I have indicated, the data 141 indicates that in certain populations it's fairly 144 strong. In other populations it's not so strong.

145 Q: Okay. Is it your opinion that it 148 is impossible for an informed scientist to give an 151 overall assessment of the relative risk factor between 154 cigarettes and lung cancer?

155 A: Let me explain it this way. If you 158 have an analytical tool that has, you know, the 161 ability to measure things in this small box, and you 164 have a set of observations to be made in a much larger 167 box, okay. To try to use this small box to represent 170 that larger box is inappropriate, especially when this 173 small box cannot measure everything that's occurring 176 in the larger box. And I think that better 179 characterizes my view on epidemiology. It provides you 182 an indication that this is a disease and exposure that 185 you need to look at further that you need to do

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111 studies on, that you need to understand and try to 124 find out what is going on, if anything, relative to 127 specific relationships.

128 Q: The statistical associations 131 indicate that there may be a problem, there may be an 134 issue. But, they don't indicate specifically what 137 the problem is. For example, you know, should there be, if you look at the newspapers today on some of the 141 epidemiology that's being discussed in the newspapers, 144 one day you might conclude that you 147 should not eat 150 eggs and the next day you might conclude that you 153 should not eat 156 meat. And, you know, I think that it's very 159 important that we have specific data to understand 162 all 165 of the interrelationships between the lifestyles that 168 we engage in over our lifetime, our diet, our 171 genetics, our environment, our working. There are so 174 many other factors here that none of these studies can 177 really sort out the specifics of those.

178 Now, that's the big box, okay. 181 And, in these epidemiological studies, you're looking 184 at a very small box, because there is no questionnaire that's going to be able to follow a person for 20 187 years. There is no individual that would want to wear 190 a monitor for 20 years. There is no individual where 193 you can accurately assess their exposure to everything.

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111 in 20 years.

122 And, so, that's what I'm trying to 125 say is, your analytical tool is very nonspecific, and 128 you're asking for a specific result. And, as a 131 scientist, I have to tell you that your tool is not 134 sufficient to make that conclusion.

171 Q: Okay. And, that answers the 14 question.
172 A: Okay.
173 Q: You believe that the tool of 111 epidemiology is insufficient to answer anything other than 112 than cigarettes are a risk factor for lung cancer?
174 A: In this specific case, yes. I 114 gave you other cases where it was, there were more. 115 there was more information.
175 Q: Okay. All right. We're there.
176 A: Okay.
177 Q: Now, let's go on.
178 A: Okay.
179 Q: Do you believe that, aside from 121 lung cancer, that cigarettes are a risk factor for 122 other cancers or other disease?
180 A: Yes.
181 Q: Now, would you identify what they 123 are?
182 A: There has certainly been 124 reported to be a number of which probably I could not 125 sit here and identify all of them.
183 Q: I'd like you to try, if you can.
184 A: Oh, wow. There have been some.
185 MR. FOWLER: I am going to object 126 to the form, but you can go ahead and try to answer 127 the question.
186 A: There are some. I think if you 128 can. Certainly there is esophageal. There is 129 cardiovascular disease. We have, given, recently, 130 into some studies about chest or cervical cancer, all kinds of cancers. There's all kinds of 131 cardiovascular diseases. So 132 are those in genetic terms. We can get into importance. We can get into all 133 kinds of discussions these days.
134 Q: And what about birth defects like 135 low birth weights, for instance?
136 MR. FOWLER: Object to the form.
137 A: I wouldn't characterize that as a 138 disease. So.
139 Q: Okay. Now, in looking at 139 cardiovascular diseases, have there been 140 epidemiological studies suggesting that cigarettes are 141 a risk factor for cardiovascular diseases?
142 A: There have been epidemiological 142 studies on that.
143 Q: And have you assessed whether 143 they, in your opinion, are good or bad studies?
144 A: Again, I have to make a 144 distinction between an epidemiological study being 145 good and whether or not epidemiology is a good tool to use to make certain conclusions. In some cases, I 146 think that the epidemiological study was as good as it 147 can be, given the circumstances, but I don't think 148 that epidemiology, as a tool, is good enough to make 149 certain conclusions.
150 Q: Okay. Let me try this way. In your 150 report, paragraph 1, on the third page, you list 151 cigarettes are a risk factor for lung cancer. And, 152 throughout Page 3, I notice lung cancer, lung

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cancer, 153 lung cancer. Why didn't you put down there 154 cardiovascular disease, esophageal, breast cancer, 155 cervical cancer, impotence or things like that?
156 MR. FOWLER: I'm going to object to 157 the form to the extent it mischaracterizes the 158 report.
159 A: Yeah, I think that, in here, these 160 are specific judgments that are listed. I think that 161 if you look back, you will see number one says.
162 scientific knowledge about smoking and health. And my 163 understanding is, is that you don't want a book here. 164 I think you want an indication of what the testimony 165 is going to be, and certainly lung cancer has been the 166 primary topic, in most situations.
167 Q: Okay. So, this use of lung cancer 167 is by example of cancers as opposed to a limitation?
168 A: That's, in my opinion. It is a 169 statement unto itself. I would not want to necessarily 170 apply this statement to everything else. But, these 171 are examples of, yes, of opinions.
172 Q: Okay. I will need to know, just 173 for purposes of your trial testimony, whether you're 174 going to expand that or connect it or keep it the 175 same? So, is it your opinion that cigarettes are a 176 risk factor for cardiovascular diseases?
177 MR. FOWLER: Objection to the form 178 of the question.
179 A: I think you've already heard my 179 opinion as to the tool of epidemiology, and that 180 certainly would apply even more strongly to 181 cardiovascular disease. Because there are many, many 182 other confounding factors and other lifestyle factors 183 that have been associated with cardiovascular disease, 184 and there are certain intervention studies right now
185 being performed that indicate little, if any, effect. 186 So, I think that my example here is based on the tool 187 and it's similar.
188 Q: Okay. When you say "your example 188 here is based on the tool and it's similar," what do 189 you mean by that?
190 A: Well, you're coming back and 191 saying, you know, do you have a different conclusion 192 on cardiovascular disease?
193 Q: Right.
194 A: And what I'm trying to say is, is 195 that my opinions here are based on the power of the 196 tool called epidemiology.
197 Q: Right.
198 A: And, that's not going to change. 199 necessarily, relative to some of these other diseases.
200 Q: Okay.
201 A: The tool still has the same 202 power. Okay? It's the same.
203 Q: Right. Or lack of power?
204 A: Or lack of power.
205 Q: I understand that.
206 A: Okay.

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120 Q: But you made a statement in this 120 report, which is in the last paragraph, the last

121 sentence in the first paragraph of 3, it's just to be 121 as basic as I can. You said, based on this 121 statistical association, I have concluded that 121 cigarettes are a risk factor for lung cancer, but that 121 it has not been scientifically established that 121 smoking causes lung cancer. That's your statement, 121 correct?

122 A: Correct.
123 Q: And all I'm asking you to do here 123 is, would you plug into that sentence, delete lung 123 cancer, and put in any of these other diseases that 123 I just talked about, cardiovascular, emphysema, breast cancer, cervical cancer, impotence, things like that?

124 A: I wouldn't. I can't do that, 124 because, in some of the cases, I don't even think 124 they've been identified. The studies are good enough 124 to say that they're a bona fide risk factor.

125 Q: That's fair enough.
126 A: Okay.

127 Q: So you, in any other instance, in other words -

128 A: Well, sure. I think it's been 128 identified to be a risk factor in cardiovascular disease. I think it's been identified to be a risk 128 factor in emphysema, and I think those are the ones

129 where the risk factor data are sufficiently strong 129 to say that you know it should be considered to be a risk factor.

130 Q: Okay. And what about when breast 130 cancer?

131 A: I think some of that data is 131 extremely preliminary right now, and I would not say 131 that there's sufficient evidence right now to make 131 that judgment.

132 Q: Okay. What about cervical cancer?

133 A: Again, I think some of the evidence is 133 very preliminary in terms of some of the 133 associations that are observed, and I would not make 133 that conclusion.

134 Q: What about impotence?

135 A: Likewise, I would not make that 135 conclusion.

136 Q: What about low birth weight?

137 A: I don't consider that to be a 137 disease, as I indicated.

138 Q: Well, I'm not sure that sentence 138 is hinged on disease, but would you put, would you 138 replace lung cancer with low birth weight or not?

139 MR. FOWLER: Object to the form.

140 A: I don't think I would, I don't

141 think you - I mean, that's a very specific response 141 to and not a disease. You can have twins that turn out to 141 have lower birth weight, you know, and it has nothing 141 to do with smoking. So, in the case of low birth 141 weight, it really depends on, really, the genesis of 141 why there

was low birth weight.

171 Q: Right. But there have been, you are aware, epidemiological studies done on the 171 associational relationship between cigarettes and low 171 birth weight, correct?

172 A: There have been studies done, yes.

173 Q: And, have those shown that 173 cigarettes are a risk factor for low birth weight?

174 A: In that case, - I'm having a 174 problem saying it's a risk - Yeah. I'm really having 174 a problem calling a very specific measurement a risk 174 factor, okay? I think that the specific fact that 174 there is low birth weight is a fact. It's 174 measurable. Okay?

175 Q: Uh-huh.

176 (Continued on next page.)

177 A: And I think that you can show 177 that, in some cases, that there is a slight impact on 177 low birth weight. But, it's not a disease. I would 177 not, you know, it's kind of like having a risk factor 177 for a broken arm. It's just not the same.

178 Q: Okay. 178 (The luncheon recess was taken 178 at 12:30 P.M.)

179 APPEARANCES OF COUNSEL:

FOR MR. SEBASTIAN
CHARLES STEVEN GRANDALL, ESQ.
GREGORY L. FOWLER, ESQ.
REPORTED BY:
PATRICIA PRICE WHITE, REGISTERED
PROFESSIONAL REPORTER AND NOTARY PUBLIC

180 (The deposition of CATHY L. ELLIS, Ph.D. 180 was recessed at 1:16 P.M.)

181 CATHY L. ELLIS, Ph.D., 181 having been previously duly sworn, testified 181 further as follows:

182 EXAMINATION (CONTINUING)

183 BY MR. GRANDALL:

184 Q: Dr. Ellis, continuing briefly with 184 the associational relationship questions, are there 184 any particular epidemiological studies that you 184 believe are better than the rest or that stand out in 184 your mind in terms of demonstrating that cigarettes 184 are a risk factor for lung cancer?
185 A: In the United States, I would say 185 the CPS studies, especially CPS-II, because of the 185 large number of subjects, is a significant study in 185 which, you know, I think the general conclusion is 185 that smoking is a strong risk factor. However, there 185 are good studies in other countries that indicate that 185 the relative risk is not so strong. So -

186 Q: And, are there any that come to 186 your mind of those good studies in other countries, as you 186 sit here today?

187 A: Well, the studies in some of the 187 other countries are not as extensive, but they're 187 clearly valid in terms of what they're looking at. 187 Countries like Spain and China have indicated that the 187 relative risk is not nearly as great as the CPS-II 187 figures.

188 Q: Do you remember, generally, what 188 the CPS-II figures were?

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119 A: For lung cancer, I believe, in 114 males, the relative risk is around 22, 23.
111 Q: And, what were the Spain/China 112 relative risks?

113 A: They're around 2, 3, or less.

114 Q: Are there any particular studies 115 done in Spain or China that you think were 116 particularly good and you can identify?

117 A: Well, I don't think, again, I 118 don't think there are many studies done in Spain, in 119 particular, but there are studies that were particularly 120 good in Spain. When you start looking at other countries, 121 you realize, then, that there are other considerations in 122 terms of genetics and disease environment, and I 123 think that that is an important factor when you're 124 looking at cancer, and those studies should not be 125 excluded from an overall evaluation.

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11 Q: All right. Now, let's move on to the issue of causality and the issue of the 11 statistical association being insufficient to, in your 11 mind, conclude there is causality. On Page 3 in the 11 first paragraph, your concluding sentence ends with, "It has not been scientifically established that 11 smoking causes lung cancer." What is your definition 11 of scientifically established that you're using there?

11 A: Well, that's not the concluding 11 sentence, that's the preceding phrase. But, in the 11 statistical association, I have concluded that 112 "Cigarette use is a risk factor for lung cancer," but 113 that it has not been scientifically established that 114 smoking causes lung cancer. And, in terms of the 115 studies that would be included, as I indicated, would 116 be both animal studies and mechanistic studies to 117 prove a causal effect.

118 Q: Do you need both, in your opinion, 119 animal and mechanistic studies?

120 A: I want to say that it depends on 121 the quality of the data. As I indicated before, there 122 are certain animal studies that have very specific 123 tumor biology. If that's the case, then you're more 124 likely to be able to make the conclusion that 125 it's particularly associated with this exposure of this

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11 particle substance. So, it really depends.

121 Q: As to the definition, you would 122 decide scientifically established to mean that there 123 is a requirement that there either be an animal study 124 or a mechanistic study sufficient to do what?

125 MR. FOWLER: Object to the form.

11 A: Yes, I think that you can't sit 11 here and prescribe, in advance, the specific 11 information. I would say that you would have to have 116 not just an animal study. You would have to have more 117 than one, in more than one species. You would have to 118 demonstrate a dose response, for example. You would 119 attempt to show that there is an increase in tumors, 120 and that increase in tumors is associated with the 121 dose. You would have to then look at consistency, 122 is this peculiar to this species of animal? Is this 123 animal enzymatically or biochemically different

so 118 that, for example, a certain metabolic is activated 119 in that animal and not in other animals?

120 So, there are an extensive array 121 of studies that would need to be investigated in order 122 to ascertain if this is a real effect that could be 123 applied to humans.

124 Q: But, when you use the term 125 "scientifically established," do you think your

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11 definition would comport with that in the scientific 12 community?

12 MR. FOWLER: Object to the form.

11 A: I don't understand what you're 12 saying.

12 Q: Are there any scientists that 12 you're aware of that take a contrary view and say, of 12 course, you can determine causality with 12 epidemiological studies alone?

12 MR. FOWLER: And you're talking 121 specifically to lung cancer?

122 MR. CRANDALL: Yes.

123 MR. FOWLER: Okay.

124 A: I think that there are certain 125 scientists that think the preponderance of evidence 124 may lead to a conclusion that smoking causes lung 125 cancer. And I think that some of the evidence that 125 they're using is more circumstantial in nature. I'll 125 give you an example. One of the criteria is 125 plausibility or biological plausibility; that is, 125 there sufficient reason to assume that there is 125 something in smoke that could cause cancer? Now, 125 sure, there are carcinogens in smoke. But, there is a 125 dose-related issue here, and there are documents, even 125 by WHO that indicate that when I take those

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11 material and try to then cause cancer in an animal 12 that you don't get cancer, because the levels in smoke 13 are very low.

14 So, the biological plausibility, 15 while it exists in concept, it doesn't exist in actual 16 experimental fact. And, I think there is a big 17 difference. And so there are differences of opinion 18 on those different data.

19 Q: Do you feel that the scientists 120 who have a difference of opinion on this question are 121 credible?

122 MR. FOWLER: Object to the form.

123 A: Again, I think I think it very 124 much depends. I'm not, again, going to comment on them 125 as an individual. I think that is something that I 124 certainly don't, not knowing the individual, could not 125 comment on. Is it credible to conclude that you should 125 do more study, that there is an issue that we need to 125 investigate and research? Absolutely. Is it credible 125 to conclude that the public should be notified through 125 the warning labels? Absolutely. I think that's very 125 credible.

125 Q: But, is it credible, as a matter 125 of science, for scientists today, any scientists today, 125 to come to a contrary conclusion, from yours, that it

Page 134

11 has been scientifically established that smoke-

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ing causes lung cancer?

131 MR. FOWLER: Object to the form.

132 A: You are asking, is it credible for (131) science to take a contrary view, and that happens all the time, and I think that's a very important part of (131) the process. Is it credible for someone to have a (131) different opinion on how much data is needed to make (131) an overall conclusion? Yes. I mean, people have (131) different requirements to take them in a given (131) direction. From a public health perspective, again, if (131) your objective is to communicate or to warn, then, I (131) think, that there is sufficient data to do that.

133 Q: What about if your objective is to (131) hold cigarette companies legally accountable for their (131) products?

134 MR. FOWLER: Objection. Calls for (131) a legal conclusion.

135 A: I'm not a lawyer. I can only speak (131) as a scientist. I think that, from a scientist's (131) perspective, cause means that you have a - Let me (131) better explain it this way.

136 Truthfully, I don't think we know (131) what causes cancer as a scientific community. I don't (131) think the National Cancer Institute and the NIH would.

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137 (11) be putting as much money into research if we know what (131) causes cancer. I think we would have a sense if we knew (131) what causes cancer. That's a general statement. And, (131) therefore, I think the scientific community, (131) in general, agrees that we don't know what causes cancer, (131) from that perspective. If we come at it from that (131) way, okay?

138 Q: All right. But there would be (131) sharp disagreement, would there not, in the scientific community, over what should be done about the (131) knowledge that we do now have about the association (131) relationship between smoking and lung cancer, would (131) you agree, with that?

139 A: What we should do? Excuse me?

140 Q: Yes. What we should do, in (131) instance, you would agree there are some scientists (131) who think that smoking should be banned, over (131) that, correct?

141 A: I would assume so, yes. Again, (131) that's not a scientific question. I think I'm here to (131) speak on this audience. There, again, can be any number (131) of people that will make different conclusions on the (131) same data in terms of what they might do.

142 Q: Are you familiar with a Robert (131) Crossinger?

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143 A: It sounds vaguely familiar.

144 Q: Do you know who he is?

145 A: I can't tell you I do, but it does (131) sound familiar.

146 Q: Now, what about a Richard Thomas?

147 A: Well, there are several, I would (131) imagine. There's one on TV.

148 MR. FOWLER: There's John Boy.

149 Q: Are you familiar with a Richard (131) Thomas, too, as a scientist in the field of (131) epidemiology, among other things, having to do with (131) cancer in smoking?

150 A: Specifically, no. Frequently, (131) though, scientific studies report names as R. Thomas (131) or whatever, so, and that's a fairly common name.

151 Q: All right. This is switching (131) subjects entirely, but when was the last time you were (131) deposed? In other words, when was your most recent (131) deposition prior to today in tobacco-related matters?

152 A: Like I said, there was one that (131) was within the last month what was canceled. And, (131) before that, I believe it was single in a telephone (131) deposition, just some time last fall.

153 Q: Now, part of your testimony that's (131) also outlined on Page 3 has to do with nicotine and (131) Page 137

(11) the use of the word addiction, correct?

154 A: Yes.

155 Q: And, you think that it's (131) inappropriate to use the term addiction in connection (131) with smoking, is that right?

156 A: It depends on how you define it.

157 Q: Well, you disagree with the term (131) nicotine addiction?

158 MR. FOWLER: Object to the form.

159 MR. CRANDALL: Well, all right. (11) I'll rephrase it.

160 Q: You disagree that nicotine causes (131) an addiction in smokers?

161 A: If we are to define addiction in a (131) pharmacological sense meaning intoxication, physical (131) dependence and intolerance, I disagree.

162 Q: Okay. Let's take each one. That (131) was any next question.

163 You say in a pharmacological (131) sense. What is the pharmacological definition that (131) you're using there? You just may have said it, but I'd (131) like you to say it again a little more slowly.

164 A: Sure. Pharmacological (131) definition involves an interconnected set of criteria. (131) One is intoxication or this is generally looked at as

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(11) the effect that the person desires. And, it's widely (131) known that smoking is not intoxicating.

(131) Number two, what happens is, as (131) this person desires this effect, they then find, over (131) a period of time, that they need more of the material (131) to get that same effect and that's called tolerance. (131) It's also widely observed in smokers that we don't see (131) people going from two to four to six packs of (131) cigarettes, and so we don't see that escalation in (131) their smoking lifetime.

(131) Number three, then, it's as more (131) and more of the substance is required to get that (131) intoxicating effect, what happens is that there is an (131) actual physical dependence, the biochemical mechanisms (131) of the body change. It could be in terms of the (131) metabolism of material and other factors change. And (131) you then have a result that results in an actual (131) physical dependence for

that material. You don't have 1191 normal functioning. And, when you withdraw that 1201 material, there is a significant withdrawal syndrome, 1211 which could even result, in some cases, in 1221 hospitalization or death.

1231 And, obviously, when you have 1241 statistics and even in the Surgeon General's report 1251 that there are more people that have quit smoking than

111 smoke today, many with little or no assistance, the 121 third set of criteria do not match either for a 1221 pharmacological addiction.

141 Q: And from where are you deriving 151 that definition?

161 A: Well, that definition - There are 171 two things that I want to bring up, first of all. 181 That definition has been looked at from a 191 pharmacological sense over the years, especially as it 1101 relates to classic drugs of abuse. The other thing is 1111 that elements of that definition are buried in many 1121 different definitions of addiction. But, that over 1131 the years the definition of addiction has become more 1141 behavioral in nature.

1151 Q: But are there pharmacological 1161 tests that you're familiar with and are relying on 1171 that per se these three criteria?

1181 A: The three criteria have been used 1191 in pharmacological tests over the years, yes.

1201 Q: And can you name some of the more 1211 important tests in which one would see that?

1221 A: Well, some of the early times that 1231 those tests have been used relate to even the World 1241 Health Organization definition under the 1964 Surgeon General's report has used certain of those terms and

1111 made judgments on those terms. I've already 1121 indicated that, over the years, what's happened is 1131 that some of the terms and definitions have changed.

1141 Q: Okay. Now, you used two examples, 1151 the World Health Organization and the Surgeon General's report from the 1960s.

1171 Does the World Health Organization define nicotine as an addiction?

1191 MR. FOWLER: I object to the form 1101 of the question.

1111 A: Are you saying now or -

1121 Q: What now or ever.

1131 MR. FOWLER: Same objection.

1141 A: Again, I would have to, I, 1151 specifically, don't have that recollection of exactly 1161 what the status is relative to that particular 1171 organization at the top of my head right now.

1181 Q: Okay. Well, you used it as an 1191 example, I think, of -

1201 A: Early on, yes.

1211 Q: Early on. And I am not sure in 1221 what context you are using the example.

1231 A: Well, you had indicated or asked 1241 who else had used the same terms that I was using. 1251

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And, the Surgeon General and the World Health

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111 Organization were two examples.

121 Q: Okay. They used the same 121 definition of the pharmacological definition of 141 addiction at some prior point in time?

151 A: Some of the terms were used by 161 them, yes, uh-huh.

171 Q: Well, when you say "some of the 181 terms," you identified three criteria: one, 191 intoxication.

1101 A: Right.

1111 Q: -two, tolerance, and, three, 1121 biochemical physical dependence, correct?

1131 A: Yes.

1141 Q: And, did, at some prior point in 1151 time, the World Health Organization define addiction 1161 that way?

1171 A: Whether or not it was completely 1181 identical to that in all ways, they may have had other 1191 factors, they may not have had all the factors. What 1201 I'm trying to say is that they had some of the 1211 factors, the Surgeon General had some of the factors. 1221 These are the pharmacologically objective factors, as 1231 opposed to some of the factors right now that are 1241 being used to define the term addiction that are 1251 commonly used when we use the term loosely to define

Page 142

111 repeated behaviors such as, you know, addicted to 1121 chocolates or addicted to video games or gambling or 1131 whatever. Those are behaviors.

1141 Q: So, the distinction you draw as 1151 being, one of the distinctions you draw is between 1161 behaviors and addictions?

1171 A: No. I'm trying to say -

1191 MR. FOWLER: Objection to the 11 form.

1101 A: -that within the definition of 1111 addiction, people have used that term in a 1121 pharmacological sense or in a behavioral sense. And 1131 of recent time, many of the definitions have been 1141 associated with psychiatrists as is in DSMs or 1151 diagnostic manual. And they have to define what a 1161 disease is from a behavioral standpoint in order to 1171 get their insurance payments. So, they have to 1181 categorize these diseases and, since they're 1191 psychiatrists, they tend to categorize behaviors.

1201 And so they have taken the 1211 definition and described it in behavioral terms. And, 1221 it is fundamentally, then, much broader because it 1231 doesn't really look at the pharmacological basis. It 1241 looks at the result of the behavior.

1251 Q: All right. Which Surgeon General's

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111 report used the pharmacological sense for defining 121 addiction?

121 A: Well, '64 Surgeon General's report 141 discussed smoking and nicotine in the context of 151 intoxication and, you know, said it wasn't 161 intoxicating. Even the DSMs say it's not intoxicating.

101 A: So, you know, those things were discussed.

102 Q: Okay. Did there come any Surgeon General's report, though, where the conclusion was that nicotine was addictive?

103 A: Yes.

104 Q: When was that?

105 A: In particular, in 1988.

106 Q: 19 -

107 A: '88.

108 Q: Okay. And I take it you disagree with that conclusion?

109 MR. FOWLER: Object to the form.

110 A: Well, again, I think you have to look at the definition if you're defining addiction as repeated behavior. Most reasonable people would look at smoking and recognize it's a repeated behavior.

111 Q: Is there any sense in which the Surgeon General was using addiction?

112 A: Well, I think there were a number of other factors that they discussed, also.

113 Q: And what were those other factors?

114 A: Well, it's very complex, to be truthful, because there are elements that have been intertwined in a number of different discussions on addiction and there has never really been a clear definition. So I would not want to articulate something that was clear because it isn't clear. It truly is not clear.

115 Q: Okay. And when you say, "it's not clear," what is that you're referring to?

116 A: What addiction means.

117 Q: Okay. So, it's not easy to define it, basically?

118 A: That's - it's not easy to define it, but that's a different issue than, really, describing how it's been traditionally used. It's never been defined clearly. People use it in different ways.

119 Q: Now, your opinion is that the use of the term addiction, and I think this is in the bottom of page 3 of your report, is so inclusive, today and vague as to be virtually meaningless, correct?

120 A: That's right.

121 Q: And why do you say that? I mean, why is it your position that it's virtually meaningless as a term today?

122 MR. FOWLER: Object to the form.

123 A: Because it describes so many things. It describes going to sleep every night. It describes eating every day. You know, if all those things can apply, then you have no ability to distinguish within it.

124 Q: Are there any texts that you're aware of, that is modern, scientific texts, aside from the World Health Organization and the 1960s Surgeon General's report, that define addiction in the pharmacological sense using the three

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criteria that you used?

125 A: Well, to be frank, scientifically what's happened is, is that the scientific community has recognized that the term addiction is overly broad and vague. And, that even the DSM has transferred from the use of the term addiction to the term physical dependence determining or dependence producing. So they now use the term dependence producing or dependence.

126 And, that, again, I think just

127 magnifies the issue because, you know, we can be dependent on our mothers and that's not necessarily a pharmacological dependence.

128 So, I think that it's very difficult to ascertain pharmacologically here what the meaning is of this term.

129 Q: But what about textbooks? You're referred to a DSM, and I take it that that's a fairly recent change that has been made in the DSMs going from addiction to dependency?

130 A: Well, it's not that recent, no.

131 Q: Okay.

132 A: The DSMs are a series of manuals that the psychiatrists use to describe psychological, behavioral disorders. It is their guideline, for whatever it is, and they go through and describe the behaviors you would see if you were to diagnose somebody as having that syndrome. And, so, within that, they describe dependence and nicotine dependence.

133 Q: Okay. But there was a change from addiction to dependence in the DSM definition?

134 A: In the series of DSMs there was a progression. There is DSM-I, there's II, A and B, basically, and then there's IV, IV is the most recent one, but it's a number of years old now.

135 Q: And, in that DSM, nicotine is described as a dependency as opposed to an addiction?

136 A: That's correct.

137 Q: All right. Now, do you agree or disagree with that use of the term: that is, nicotine dependency?

138 A: Well, -

139 MR. FOWLER: Object to the form.

140 A: -again, we have to define what we're talking about here. But, let me take this to another level. We have to distinguish between smoking and nicotine, because smoking is the behavior and nicotine is the alleged pharmacological agent. And, you know, this is complicated by the notion that some of the studies by even Dr. Henningfield in submitting information to the FDA on nicotine gum and patch, he has concluded that nicotine itself is of low abuse liability. So, when we talk about addiction, and we talk about behavior, are we talking about nicotine or are we talking about smoking?

141 Q: All right. You said that smoking was the behavior and that nicotine was the agent. Are

those your words?
129 A: The alleged.

131 Q: The alleged agent, okay, in your view, is it impossible to segregate out the impact of smoking and nicotine from the smoking in trying to determine dependency?

134 MR. FOWLER: Object to the form.

134 A: If you just look at smoking, is it known, as we're all aware, there have been numerous attempts to substitute for smoking using nicotine gum, nicotine patch, nicotine aerosols, nicotine nasal sprays. And the inability of those devices to, basically, substitute for smoking certainly indicates that nicotine is the key factor in smoking behavior, or the maintenance of that behavior, per se, pharmacologically speaking. (134) Otherwise, why wouldn't it substitute?

134 Q: Now, you mentioned Henningfield. (137) Who is Dr. Henningfield?

134 A: Well, he was previously at NIDA. Now I believe he works for a drug company and he has been historically been working in the area of nicotine. His (138) published in the area of nicotine. NIDA being the (139) National Institute of Drug Abuse, has been certainly (140) an individual who certainly believes quote nicotine is (141) addictive and smoking is addictive, however, has (142) submitted documents to the FDA when he has evaluated.

131 nicotine, in the context of gum and patch, to say it has low abuse liability.

131 Q: Okay. Well, so I take it that you think that Dr. Henningfield has, on occasion, submitted inconsistent statements to the FDA?

134 MR. FOWLER: Object to the form of the question. It misstates the testimony.

134 A: Yeah, I'm not saying that at all.

131 Q: Okay.

134 A: I'm saying that he, what he has said these are facts. I mean, he has stated in publications (143) his opinion on nicotine and smoking. However, when he has done his own studies on nicotine gum and patch, he (144) has submitted data that concludes, in his own words, (145) that nicotine has low abuse liability.

134 Q: Okay. What do you understand Dr. (146) Henningfield's opinions about nicotine and smoking to be?

134 A: I really don't want to -- I have (147) never personally spoken with him, and my evidence and (148) knowledge relates to his publications and the (149) literature and his submissions to the FDA.

134 Q: All right. From what you have read (150) about Dr. Henningfield, what do you understand his (151) opinion of the relationship between smoking and

131 nicotine addiction to be?

134 A: I --

134 MR. FOWLER: Object to the form.

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134 A: I'm not sure because there are (152) inconsistencies in his opinions.
134 Q: Okay. What are the inconsistencies (153) you see in his opinions?

134 A: Well, if nicotine has low abuse (154) liability, then how can you conclude that nicotine is (155) quote responsible, well, not quote, but is responsible (156) for quote smoking addiction?

134 Q: And are the submissions to the FDA (157) that you're talking about recent or older?

134 A: Well, --

134 Q: -- in terms of the low abuse (158) liability documents?

134 A: Older in terms of they were in the (159) '90s, certainly.

134 Q: Okay. Was this in connection with (160) the ability to market the nicotine patch?

134 A: Absolutely, yes.

134 Q: Okay. Now, what other (161) inconsistencies do you see in Dr. Henningfield's (162) writings?

134 MR. FOWLER: Object to the form.

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131 A: Well, that's a very broad (163) question, you know, and I don't know if I'm prepared (164) to sit her today and go through everything that maybe (165) I've read six years ago on some of the (166) inconsistencies. So, I believe that there are (167) inconsistencies in terms of some of the data, the (168) tables, we found inconsistencies. I think there are (169) inconsistencies between documents and between his (170) expressed opinions and other venues and what he's (171) expressed in publications, also.

131 Q: Okay. Well, you don't have to, if (172) you can't tell me the exact details, that's fine, but (173) I want you to tell me, in substance, what you perceive (174) to be the weaknesses in his opinion, because, I take (175) it, you disagree with his opinion.

134 MR. FOWLER: Objection. I think (176) it's one, calling for something that she says she (177) doesn't completely recollect, and, two, it's just (178) overbroad.

134 A: Yeah, I indicated that I don't (179) truly know his opinion today. I haven't spoken to (180) him. All I know is what I've read from his (181) publications and from his submissions to the FDA and (182) that's certainly relative to what he has been quoted on in (183) the newspapers or in the media. And that's what I

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131 know.

131 Q: But, do I know his opinions in (184) general? I can't say that I do.

134 Q: Okay. How do you regard him as a (185) scientist? Is he a competent scientist, in your (186) opinion?

134 A: I think that Dr. Henningfield is a (187) public health scientist, and I think that, therefore, (188) his opinions will be formulated, perhaps, based on (189) data and information that give indications that are (190) not necessarily scientifically conclusive.

134 Q: Okay. Do you believe that Dr. (191) Hen-

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ningfield has followed the scientific method in reaching his conclusions?

[154] **MRS. POWELL:** Objection. Overbroad. [155] He has a whole body of work, and I think that's just [156] [157] overbroad and impossible to answer, as [158] phrased.

1104 A: And my answer is, is that I don't know his conclusions overall and haven't spoken to him recently. I can't answer that question.

(21) Q: You indicated, I think, earlier, (27) you're familiar with Dr. Benowitz because it came up (23) during a colloquy, is that correct?

DAI A. J. S. S.

1291 Q And are you familiar with his

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III. Options?

IN A: National

Q: And what do you understand them to (4) be?

(7) A: Yes, well, he's certainly had an opinion on nicotine availability and smoking. (8) And, here again, some of those, I understand, have [10] changed.

(11) Q: And, do you regard him as a competent witness?

(13) A: I regard Dr. Benowitz as a 14 scientist who I think is willing to look at data, and not suppressing that.

(14) Q: Okay. In both my questions about (17) Henningfield and Besowetz, when I asked if you thought (14) they were competent, you sort of left that word out in (16) your response. So it would like you to answer (20) directly, if you are able to, whether you believe that (21) Dr. Henningfield is competent.

1221 MR. FOWLER: Objection to 1219 colloquy.
Also, objection to the form of the 124 question. It's
overbroad and it may call for 124 speculation,
based upon the witness' assessing the

31

!!! she's not familiar with the whole body of research. There is a whole body of research, at least at the cellular or at cellular. So, if you can answer the

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19 A: You think the issue is how far (7) - The issue for me on competence is how far are you willing to go with your data, reasonably speaking? In (9) *Chomsky*, do you overinterpret or use it in a way (10) that is unjustified? And, I think, as we indicated (11) before, from a public health perspective, frequently (12) the conclusions that are reached and the actions, (13) public health actions, occur, justifiably, much sooner (14) than specific scientific evidence would be required.

(18) In other words, if you have any (16) indication that there may be an issue with something, (17) you would want to communicate that as soon as (18) possible, whether or not you've absolutely pro-
vea or (19) concluded it. Okay?

1204 So, I see there being a very big [21] difference between the data that's required for Dr. [22]

publications and the information that has come out of 13 their work.

14 That doesn't mean I know 15 everything they've considered. It could be that some 16 of their opinions relate to information they didn't 17 consider, for example. So that has nothing to do with 18 competence. And, until you really get to understand 19 the basis on which somebody's opinion is built, the 20 data, the quality of the data, and the way they handle 21 that data, you can't make that judgment.

22 Q: How long ago was it that you 23 reviewed any information that was produced by either 24 Dr. Henningfield or Dr. Benowitz?

25 MR. FOWLER: Object to the form.

26 Q: When was the last time you looked 27 at written scientific product that they had produced?

28 A: Well, I don't know if I've ever - 29 I'm not sure I understand what you mean by written 30 work product.

31 Q: As an expert report.

32 A: I don't think I've ever seen their 33 - I may have seen their expert report, but it's been 34 certainly a while since I've ever seen it. I certainly 35 wouldn't judge competence of an expert report.

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36 Q: Okay. And, why not?

37 A: Because you don't know, again, the 38 facts and the data that went into that opinion and how 39 they considered and weighed it.

40 Q: Okay. But, one of your comments of 41 Dr. Henningfield, as I recall, from a few moments ago, 42 was how far they go with the data. And I think you 43 were talking about him when you said that, is that right?

44 A: (m-)

45 MR. FOWLER: Object to the form.

46 A: I'm not sure if I was talking 47 about him or just in general.

48 Q: Okay. Well, do you have concerns 49 with how far Dr. Henningfield has gone with his data 50 in reaching his conclusions?

51 MR. FOWLER: Same objection. Object 52 to the form.

53 A: Again, I recall years ago reading 54 certain reports whereby I did not see in the report 55 sufficient data to justify the conclusions that were made.

56 Q: But this is years ago. You 57 haven't looked at anything recently?

58 A: I have not looked at anything

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59 recently.

60 Q: All right. Now, recent, say, 61 within 1998?

62 A: That's correct.

63 Q: All right. Now, is the same true 64 of Dr. Benowitz?

65 MR. FOWLER: Objection. Vague.

66 Q: Well, have you looked at any 67 recent reports that Dr. Benowitz has written in 1998?

68 A: There have been literature 69 reports, and, actually, Henningfield may be on those 70

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literature reports.

103 Q: Okay.

104 A: But the ones that I'm referring to 105 in terms of the conclusions being out of, not being 106 justified by data in that report - Now, the data may 107 exist, but they weren't in that report.

108 Q: Okay. But, have you looked at any 109 expert reports of Dr. Benowitz that were done, say, 110 within the last year, in 1998?

111 A: I don't believe I have seen any 112 expert reports of theirs.

113 Q: Okay. Now, are you familiar with a 114 fellow named Perrin?

115 A: No.

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116 Q: Would you agree with the statement 117 that Dr. Henningfield used a paternalistic attitude 118 which drove him to engage in a corrupted science? 119 Would you agree with that?

120 MR. FOWLER: In what context?

121 MR. GRANDALL: In the context of 122 his conclusions regarding smoking and nicotine 123 addiction.

124 MR. FOWLER: Object to the form. 125 Lacks context.

126 A: I'd have to say that I would not 127 conclude or agree with anything until I was 128 faced with the specific evidence that led to that 129 statement.

130 Q: Well, let me ask you this, Dr. 131 Ellis. At trial, do you expect to offer any opinions 132 about anything that Dr. Henningfield or Dr. Benowitz 133 may have on subjects concerning your expert report, 134 that is, Exhibit 1?

135 A: I think I have.

136 MR. FOWLER: Objection. Vague.

137 A: -opinions that are related to 138 topical areas that I might comment on, yes.

139 Q: Okay. And what I'm asking you 140 through these questions is, can you be - Aside from

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141 what you have already told me in response to my 142 questions here at this deposition, do you have, do you expect to offer anything else at trial with respect to 143 Dr. Benowitz and Dr. Henningfield and the work that 144 they have done in the fields that are similar to 145 yours?

146 MR. FOWLER: I'm sorry, I'm going 147 to ask for a clarification.

148 DR. ELLIS: Yes.

149 MR. FOWLER: Are you talking about 150 their ability to testify about their, you know, 151 personal qualities as researchers, or are you talking 152 about commenting on their opinions or, you know, 153 literature and scholarly work?

154 Q: Let's take them one at a time. Do 155 you expect to comment at trial on any opinions 156 Dr. Henningfield possesses?

157 A: To the degree that some of the 158 areas that I have covered are relevant to areas that 159 he might cover, yes, scientific opinions, yes.

160 Q: Okay. What is it you expect to say 161 at trial

about Dr. Heinswield's opinions?

128 MR. FOWLER: Objection. I don't 124 think Heinswield is an expert in this case.

129 MR. CRANDALL: Well, he may not be.

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131 He may be. He may not be. All I'm doing is asking the 125 witness to testify, to answer questions.

133 Q: Here is what I'm trying to do. 126 This is my last opportunity to talk to you until you 127 take the stand. Okay?

128 A: Right.

134 Q: And, therefore, I'm entitled to 129 know as much detail as I can about what you're going 130 to testify and our trial is a month and a half away. 131 Okay?

132 A: Right.

133 Q: Can you outline that you've 134 provided is just that, it's an outline?

135 A: That's right.

136 Q: And, therefore, if there is any 137 more detail that you can offer in the way of opinions 138 about witnesses, potential witnesses, or things like that, I'm entitled to know that at least exhaust 139 your knowledge of that now. So, when I am asking these 140 questions, if I have exhausted your knowledge of all other Heinswield or Benowitz or any of the other 141 witnesses that I may identify for you, that will be 142 the end of it.

143 What I'm trying to avoid is 144 just saying where-let me just say this, just objecting.

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145 this suggestion, you go back and say, okay, so 146 I'm not going to be a witness. I want to read 147 everything the guy has ever said. I want to read 148 all opinions in other cases, and I'm going to testify 149 about that at trial. If that's what you intend to do, 150 then I need to know that now and we can continue the 151 deposition. If you don't, I'll leave the subject and 152 we're done. It's just a question of what I call on your witness words, it's a question of our 153 ability to know exactly what you're going to testify 154 in the time of trial. Okay?

155 A: Right.

156 Q: So, my question to you is, do you 157 expect to testify about any opinions that either Dr. 158 Heinswield or Dr. Benowitz has issued in the field 159 of nicotine and smoking addiction?

160 MR. FOWLER: Object to the form of 161 the question.

162 A: I expect to respond to any 163 testimony that's been presented in the trial.

164 Q: Well, okay.

165 A: And I am not, while sitting here, 166 aware of every opinion of Dr. Benowitz and 167 Heinswield, especially as it relates to a trial that 168 hasn't occurred yet.

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169 Q: Okay. That I am willing to accept 170 and you have indicated that you haven't read, I think, 171 any of the Plaintiff's expert reports, correct?

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172 A: Right.

173 Q: Okay. Well, is it then, since you 174 haven't read those reports, is it fair to say that you 175 don't expect to comment on those reports at the time 176 of trial?

177 A: I don't have any plans right now 178 to, no.

179 Q: All right. Now, let me just finish 180 123 up with some questions about Dr. Benowitz.

181 MR. FOWLER: May I interrupt for 182 just a moment, please?

183 MR. CRANDALL: I'd rather you not, 184 actually.

185 MR. FOWLER: Okay.

186 MR. CRANDALL: If there is an 187 objection or something, sure, but there is no question 188 pending. And, if I ask one that's objectionable, by 189 121 all means object. But I'd rather not, you know, have 190 122 the testimony interrupted if I could avoid it.

191 MR. FOWLER: All I want to do is 192 just mention that on Page 5 there is a stand alone 193 paragraph that suggests that Dr. Ellis may be asked to

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194 comment upon the opinions expressed by other 195 witnesses, as well as the evidence they rely upon, to 196 the extent these opinions relate to her area of 197 expertise and that stands. And I just want to make 198 it clear for the record. And apologize for the 199 interruption.

200 A: Well, that's what I'm talking 201 about.

202 Q: Well, it's not how it works, 203 actually. At least my understanding is, that it's not 204 111 how it works. Counsel, and I understand that you may 205 112 be asked to comment upon the opinions expressed by 206 113 other witnesses, okay, just so you are aware. Dr. 207 114 Ellis, that you have been and by "you" I mean the 208 115 Defense has been provided with numerous expert reports 209 116 of the Plaintiff. You're aware of that, correct?

210 A: No.

211 Q: You don't even know that?

212 A: No.

213 Q: Okay. And you haven't reviewed any 214 121 of them so this day, right?

215 A: Right.

216 Q: So if I were to ask you any 217 122 questions about any of those reports, you'd tell me, I 218 123 don't know what you're talking about, Mr. Crandall.

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219 because I haven't seen them, right?

220 A: That's right.

221 Q: All right.

222 MR. CRANDALL: Now, Counsel, your 223 151 statement about being asked to express by other 224 152 witnesses, we can take up in another arena and we 225 153 don't have to go into it. I'm not sure at all if it 226 154 stands or is reasonable. If this witness is to testify 227 155 as an expert witness in this case and you expect her 228 156 to testify about any of the opinions of the 229 157 Plaintiff's experts, it was incumbent upon you to have 230 158 her prepared to do so today

and she is not. She hasn't (13) even seen the expert reports.

(14) MR. FOWLER: You certainly could (15) have brought the expert reports with you and asked (16) anything out of her area of expertise from those (17) reports that you wished to. That was your option to do (18) that or not.

(19) MR. CRANDALL: All right. We can--

(20) MR. FOWLER: But, we're not going (21) to resolve this right now.

(22) MR. CRANDALL: You're right.

(23) MR. FOWLER: And we need not argue (24) on the record and I don't mean to argue. I just (25) wanted to mention to you that part of the report and

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(1) we can leave that for later, if you'd like.

(2) MR. CRANDALL: Indeed.

(3) BY MR. CRANDALL:

(4) Q: Now, Dr. Ellis, let's move us back to the issue of smoking and nicotine addiction (5) for a moment.

(6) Q: Do you know how the World Health Organization today classifies nicotine in terms of (7) whether or not it's a disease or has addictive (8) properties?

(9) MR. FOWLER: Object to the question.

(10) A: I'm not sure what you mean by (11) saying nicotine is a disease.

(12) Q: Well, that was not all right. That (13) was an inappropriate wording. Let me put it this way. (14) Do you know whether the World Health Organization (15) today uses the term "nicotine dependence"?

(16) A: I think it does, yes.

(17) Q: And in what context does it use (18) that term?

(19) A: Most of the definitions, more (20) recently, are heavily based, and the copulation, (21) in many cases, is that since people repeatedly smoke, (22) passed that since nicotine is addictive, that must be the (23) basis for their smoking. And, that, basically.

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(1) their assumption.

(2) Q: Okay. And, you disagree with that?

(3) A: I think there is evidence to (4) indicate that that is not necessarily a correct (5) assumption or one that should be made without -- You (6) have to look at the data and the evidence to support (7) it. It's an assumption that can be made, clearly. But (8) when you start looking at some of the data relative to (9) guns and patch and other things, it's pretty clear (10) that if you don't get the same behavior with those (11) materials, you still have nicotine; that there's other (12) things, it's more complex than that. And I think that (13) those pieces of evidence need to be included.

(14) Q: Do you know how the World Health Organization came to use the term "nicotine dependence" (15) in their classification of diseases? (16) MR. FOWLER: (Addressing the court) (17) (Addressing the court) Would you read that back, please?

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(19) MR. CRANDALL: I'll say it again.

(20) Q: Do you know how the World Health Organization came to use the term "nicotine dependence" (21) in their classification of diseases?

(22) A: I will say that I have reviewed (23) some of the pronouncements under the term addiction and (24) dependence over the years and different things have

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(1) evolved in different documents and from different (2) organizations. I can't say that I was a part or know (3) exactly how they formulated those particular (4) definitions, no.

(5) Q: All right. If I suggested to you (6) that there was a consensus of physicians that met and (7) analyzed and then adopted these terms on behalf of the (8) Organization, would that refresh your memory at all?

(9) A: I think there were probably (10) circumstances that were reviewing this and still do and (11) it's still changing. It probably is not something (12) that I would not expect to happen, and it's still a (13) matter of discussion.

(14) Q: Okay. But do you, as a (15) professional and expert, agree or disagree with the (16) World Health Organization's use of the term "nicotine dependence" (17) in their classification of diseases?

(18) MR. FOWLER: Object to the form of (19) the question.

(20) A: Yes, I'm not sure I understand (21) what you mean. Do I agree with their using it? Or do (22) I agree with how they use it?

(23) Q: Well, I take it you don't disagree (24) with their using it. Or, maybe you do?

(25) A: I think they, in the scientific

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(1) process, I think that it's appropriate for scientists (2) to get together and discuss the data that's available (3) and to come to conclusions. It may be found that those (4) conclusions are not correct later on, but that's the (5) status of the information. I think that the World Health Organization is a public health organization, (6) and I think, again, this is a situation wherein public (7) health the data don't all have to be there in order to (8) justify--justifiably communicate and more.

(9) Q: Okay. My question, I understand (10) that, and I guess I'm asking now the second part of (11) your analysis, which is, do you agree or disagree with (12) the science that went into the classification of (13) nicotine dependence by the World Health Organization?

(14) MR. FOWLER: Object to the form of (15) the question. Calling for speculation.

(16) A: Yes, I just said I wasn't (17) involved in that process, so I'm not sure what data (18) and science they considered.

(19) Q: Okay. But you have opinions and (20) just so I'm not, I don't think, talking out of school, (21) you have opinions on the issue that nicotine is not an (22) addictive substance by the pharmacological definition, (23) and you are expected to testify that there is no (24) information supporting the conclusion that nicotine is

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(1) cigarette causes smokers to experience intoxication, (2) pharmacological tolerance, and significant withdrawal (3) symptoms. Those are among the things you will testify (4) about, correct?

(5) A: Correct.

(6) Q: Now, do you think that the use of (7) the term nicotine dependence by the World Health Organization is an appropriate way to classify (8) smoking?

(9) MR. FOWLER: Object to the form.

(10) A: It depends on their criteria. You (12) know, as I said before, the World Health Organization (13) is a public health organization. Their use of the (14) term I can't argue with. You know, language is (15) difficult when we have words that mean many different (16) things. And, the term, dependence has been defined one (17) way in one document and another way in another one. (18) And, addiction has been defined one way in one document and another way in another one.

(19) Now, it's fair for them (20) to define differently. Surely, I have no argument with (21) that. (22) The truth? What is really (23) difficult is the data that we have available so far we don't (24) really know. And I think that's why you see such (25) variability. So I think there is no problem with that.

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(26) I do think that's all in how far you take (27) it.

(28) Q: Well, when you say there is no problem with (29) defining it, that causes me to (30) question, to wonder, because you have said (31) in the same breath that there is an absence of data to (32) justify the conclusions that they (33) have't (34) you?

(35) A: Well, I think there is an absence of data right now to justify precisely how cholesterol (36) might (37) be involved in cardiovascular disease.

(38) But I totally agree that it might (39) be important to inform people that (40) many want to (41) know their state of cholesterol. And, I think (42) that's what I'm trying to point out, that for public (43) health purposes and communication purposes, you don't (44) have to have all the (45) data done and the (46) is crossed, (47) especially if you're a public health official, that (48) it's totally appropriate to try to communicate.

(49) In (50) cases there are very (51) complex situations where the data is limited and, you (52) know, I'm not arguing with the World Health (53) Organization here. But, I am saying that we need (54) to take a look at data and not just statements. We need (55) to look at the data, if we're going to come to (56) conclusions that go past a communication process.

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(57) Q: All right. But you don't have any (58) reasons to doubt that there was good science that went (59) into the World Health Organization in reaching its (60) definitional wording of nicotine dependence, do you?

(61) MR. FOWLER: Objection. Calls for (62) speculation.

undone.

(63) A: Again, I don't know precisely what (64) they considered or how they considered it, I wasn't a (65) part of the process.

(66) Q: Okay. You used the word precisely. (67) Do you have any idea what they considered?

(68) A: Well, I assume they considered (69) some of the literature that was available, and, as I (70) have indicated, the literature is extremely variable (71) and there is recent data, even within the last decade, (72) especially in terms of gum and patch, to indicate that (73) nicotine is not, in itself, is not a substitute for (74) smoking. There is recent data on the same effects of (75) nicotine in cigarettes. There is recent data on the (76) neuroendocrine factors associated with smoking. And there (77) are proclamations by other scientists to say that (78) there is more to smoking than nicotine. So, there is a (79) lot of data, and I think that one has to consider all (80) of it in the context of an overall conclusion, and (81) I'll have to tell you that I think that the overall

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(82) judgement here is that there is a lot more data that we (83) need to get in order to fundamentally understand why (84) people smoke.

(85) Q: Okay. But you would be making (86) assumptions about what the World Health Organization (87) did or did not consider because you don't know, do (88) you?

(89) A: I'm not going to make assumptions, (90) right.

(91) Q: Now, are you aware of a Dr. Bob (92) Spitzer or a Dr. John Hughes or a Dr. Chasman of (93) Columbia Medical School?

(94) A: I know John Hughes, yes.

(95) Q: Who is John Hughes?

(96) A: Well, he has been known to do (97) research in the area of nicotine and addiction in the (98) past.

(99) Q: Okay. And, do you consider him a (100) competent scientist?

(101) A: Again, I would have to evaluate (102) his opinion or conclusion, specifically, and how he (103) arrived at that before I would want to make that (104) judgment.

(105) Q: Are you familiar with any work he (106) has done in terms of smoking and nicotine and

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(107) addiction dependence?

(108) A: Yes.

(109) Q: And what is your understanding of (110) the work that he has done?

(111) A: Well, there are several reports. (112) Again, I look at his work as being public health in (113) nature, and not basic and mechanistic in nature.

(114) Q: Okay. And when you say you're (115) aware of certain work, what has he done and what are (116) the conclusions that he has come to?

(117) MR. FOWLER: Object to the form.

(118) A: I don't think I can sit here and (119) recall everything that he has done. But, basically, I (120) believe he's done some reinforcement types of studies (121) with nicotine.

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116 Q: And what are the conclusions that (17) he's reached, generally speaking, about reinforcement?

118 A: That nicotine is a positive (19) reinforcer.

120 Q: Meaning what?

121 A: Well, again, I would have to go (22) back and look at the specifics of his reports, and (23) it's been quite some time that I have--since I have (24) done that.

125 Q: Okay. But did he come, therefore,

11 to a conclusion that nicotine caused a dependency?

126 MR. FOWLER: Objection.

127 A: I mean, if you want to show me one (14) of his reports where I cannot go from memory, I'd be (15) happy to evaluate it. But I can't sit here and recall (16) the entirety of the scientific literature and expect (17) to be accurate for you. So, I don't want to do that.

128 Q: So you don't remember, as you sit (19) here, what his conclusions were aside from what you (20) have already testified to?

129 A: Well, in general, I remember what (17) his conclusions were, but I certainly don't remember (18) this specific data, and I wouldn't want to rely (19) on (14) memory.

130 Q: Okay. No, I understand that. But (16) you testified about a term, and I can't remember (17) exactly.

131 A: Positive reinforcement.

132 Q: Yes, positive reinforcement. And (24) I was trying to explore that with you a little more. (25) From the positive reinforcement conclusions, did he (26) then come to a conclusion relating to do with nicotine (27) and dependency?

133 MR. FOWLER: Objection.

134 A: Again, that's too specific for me.

135 Q: Again, that's too specific for me (17) to recall directly how far he took that in that (18) particular study.

136 Q: In the work that he did in that study, did you indicate that it was competent (19) research?

137 MR. FOWLER: Objection.

138 A: Again, I don't remember enough (14) about the particular study to take a look at, to (15) address that here today.

139 Q: Okay. Aside from Hughes, were the (11) other gentlemen of any note to you? There was a Dr. (12) Glickman and a Dr. Spitzer.

140 A: Not specifically as used, no. (14) I think I might have heard their names, but I'm not (15) specifically aware of their work.

141 Q: Okay. What is your opinion, if (17) anything, does nicotine, in smoke cause? In other (18) words, what are the impacts, if you will, of nicotine (19) in smoke in terms of its impacts on the human body, (20) perceptions, things like that?

142 MR. FOWLER: Objection. Overly (21) broad.

143 A: I think that we have, and there is (24) evidence that nicotine has certain sensory properties (25) that are rather complex, and I think

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there is, I mean.

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111 we have evidence with our Denic process that certainly (2) nicotine has certain sensory properties. There has (3) been other research to indicate that nicotine has (4) sensory properties. So, I believe that's true.

15) I think that -

16) Q: Well, -

17) A: Pardon me?

18) Q: Go ahead. I didn't mean to (1) interrupt.

119 A: I think there's certain studies to (11) indicate that the process of smoking may provide some (12) cognitive benefit. In other words, that the going (13) through a behavior and potentially the process of (14) smoking, would provide some cognitive benefit in terms (15) of attention arousal, those sorts of things.

119 Q: Now, we were talking about, (17) think, two different things or overlapping things. The (18) second part of your response you went into the (19) cognitive benefit of smoking as opposed to nicotine. (20) Do you differentiate between the two? In other words, (21) is it the nicotine in smoking that you believe brings (22) about the cognitive benefit?

120 A: I think it's very difficult to (24) separate those things out, and I think that this is an (25) area where we need more data in order to be able to do

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111 that. I think there are certain assumptions that are (12) made. I think that it may be, in part, nicotine.

12) But, in part, with some of the studies that I'm aware (14) of, even going through the process of smoking a (15) cigarette has some arousal types of - it's like (16) making a test. You become more acutely awake.

17) And, so, whenever you go through a (18) process of doing something, you're working, and that (19) makes you more awake in that sense.

114) Q: All right. You did, I think, (11) through, mention a few moments ago that nicotine has (12) certain sensory properties, is that correct?

113) A: Yes.

114) Q: What do you understand those (15) sensory properties to be?

114) A: Well, nicotine in smoke has some (17) trigeminal types of impact; that is throat grab, for example. Nicotine, per se, if you're just looking at (18) pure nicotine, in, particularly, I think, sometimes (19) it's been talked about as being pungent. And, so, (20) nicotine in smoke and nicotine as a pure compound are (21) very different. Frequently, sensory responses have a (22) lot to do with the context of the material.

124) Q: Okay. Then, let's focus on (25) nicotine in smoke.

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11) A: Okay.

12) Q: I think that's more appropriate. (13) What are the sensory properties (14) that nicotine has in smoke, aside from the throat (15) grab?

114 A: Well, we know that nicotine has 171 certain responses or effects on taste buds. But, 114 largely, the sensory impact of nicotine in smoke 114 relates to the throat grab or the strength of the 114 smoke and the feeling factors.

111 Q: Okay. When you say throat grab, 111 can you expand on what you mean by that term or that 111 sensory perception?

114 A: Well, yes, sure.

119 Q: "Throat grab," to me, it's not 114 clear what you're talking about.

117 A: Okay. Okay. Let me use an example. 119 CO2 in Coca-Cola. CO2 is a trigeminal stimulant. You would find CO2 to stimulate the back of the throat and give you that physical throat grab. And, the 121 difference between, for example, a coke and a flat 121 coke, a coke with CO2 and coke that you know, all the 121 CO2 is gone. would give you a good example of how I think a smoker would perceive a regular cigarette 121 versus a nicotineomized cigarette.

111 Q: You mentioned impact on taste buds.

114 A: Well, there are some scientific 14 studies looking at taste buds in particular. Duke 14 University right now to show that nicotine has 14 effects on the taste buds.

117 Q: Are there any other sensory properties of nicotine in smoke?

114 A: Well, there's the trigeminal 114 nerve, but there's also the vagus and the glossa 111 pharyngeal nerve that innervates the throat so they 112 all may be related to the throat grab-sensation.

113 Q: Are there any other sensory properties of nicotine in smoke, other than what you 113 have already testified about?

114 A: Based on my understanding, of what 117 you're asking, yes. Yes, that's it, sensory.

114 Q: That's it. Oh, okay. I thought you 114 were going to say no, that's it.

114 A: No.

121 Q: My question was, are there any others?

121 A: No. That's it.

124 Q: Okay. Let me see if you agree or disagree with this statement: That nicotine in smoke

111 causes alertness, relaxation, focus, work efficiency, 121 pleasantness, and improves one's overall mental state.

124 MR. FOWLER: Objection. Compound 14 and vague.

124 MR. CRANDALL: Well, it is a compound.

117 Q: Do you agree with any part of that 117 statement?

114 A: Well, as I indicated before, there 114 may be some cognitive benefits, but it's not clear 111 whether or not it's nicotine or a combination of 112 nicotine in the process of smoking or the process of 113 smoking that's the main factor. Clearly, if you start 114 thinking about taking a test or going through some, 119 you know, small activity you could use that small 114 activity and describe some of those effects.

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117 In other words, the process of 114 doing something, the behavior of actually going 119 through a task, can result in some of what you were 121 talking about.

121 The other factor, you mentioned 121 some social types of words, pleasantness. There is an 121 association of lighting up a cigarette, you know, with 124 a social conversation or, you know, a break, like a 124 coffee break. So, you know, those types of responses

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111 can be very much seen with those nonspecific types of 121 responses to behaviors and tasks.

114 Q: Okay. As I understood that last 14 response, what you're saying is that it's impossible 14 to differentiate out, at this point in time, what may be the impact of nicotine in smoke versus the impact 17 of the experience of smoking in creating any of these 14 feelings. Is that right?

114 A: Yeah. Yes, and my evidence for 114 that is, you know, we don't hear and see those terms 111 being used to describe the patch, for example. And, 112 so, therefore, are we talking about nicotine here or 114 are we talking about the social experience of 114 smoking?

119 Q: Okay. Now, are there any others—114 We've talked about sensory properties of nicotine and 117 smoke, and as I can tell so far, we've identified two 114 fundamental things, one, the throat grab and, two, the 114 taste buds. Is that right?

124 MR. FOWLER: Yes. But, she also 121 said feeling factors.

124 A: Well, yes, that's throat grab. I 124 mean, there's overlap in these terms. So, yes, that's 124 pretty much the sensory experience in the throat.

125 Q: Okay. So, the throat grab would be

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111 synonymous with sensory experience in the throat?

124 A: Uh-huh.

114 Q: And then taste buds impact?

114 A: Right.

114 Q: Okay. Now, are there any other, 114 I just say things, feelings, or responses in the 17 human system that you're aware of and that, in your 114 opinion, are generated by the presence of nicotine in 114 smoke?

114 A: I'm not sure I understand what you 111 mean by things.

114 Q: Well, I tried with a list of 114 alertness, relaxation, focus, words like that, to 114 bring out some feelings or impacts that nicotine might 114 cause, but your response to that was, well, it's 114 impossible, really, to differentiate between the 117 smoking and the social experience and nicotine in the 114 smoke, correct?

114 A: Uh-huh.

124 Q: My question to you is, are there 121 any other physical properties, aside from what you've 121 already testified about, that, in your opinion, are 121 attributable to the presence of nicotine in the 124 smoke?

124 MR. FOWLER: Object to the form.

111 A: Yes, I can sit here and we can talk about innumerable animal studies using nicotine. 112 Frequently, with high doses, higher than as seen in 113 smoke, and you can see many different kinds of 114 effects. You know, there are all kinds of effects.

115 The issue and the challenge is to 116 define what nicotine and smoke does and to separate in our the social factors from what nicotine itself may be doing. And, you know, that is, indeed, I think, the 117 ability of our tools to do that, especially in a 118 human. Because I'm not sure I'd want to use a rat as a 119 surrogate for human behavior. And, I think that's 120 very important to realize that we have certain 121 limitations in our ability to make conclusions based 122 on those data. And that's why 123 some of the 124 Dose cigarettes have been a big subject of research 125 by J. Fred Rose and others, and there has been a lot of 126 data recently indicating that, hey, there is, no 127 nicotine in that nicotine in these cigarettes. 128 By the way, there is very little nicotine in a Meir cigarette. You know, people still 129 smoke. Why isn't the trend, if nicotine is so 130 spec-tacularly pharmacologically, why isn't there a trend 131 toward higher nicotine cigarettes?

132 Q: And again, I'm not trying to

133 challenge you on your opinions, but I want to exhaust 134 them.

135 In other words, so when I ask, in 136 there anything else, I'm trying to get you to in some-gone, I'm sure able, something else that you, as a scientist, would address, so the presence of 137 nicotine in smoke. And I think the answer is not in 138 Mr. Fowler. Object to the form.

139 Q: Okay.

140 A: Okay.

141 Q: Let's go into those, because say, 142 I'm trying to limit the areas where you 143 were going to go, I could, but apparently I'm 144 not making any that way. So, let me back this 145 direction.

146 What you said a moment ago that 147 you were aware of studies on using animals, doses of 148 nicotine in animals that produced all kinds of 149 effects, is that right?

150 A: Well, I think you can -

151 MR. FOWLER: Object to the form.

152 A: You can have presentation 153 syndrome. You can have blood pressure effects. You 154 can have, I mean, you name it, there are many 155 different documents, I mean, nicotine pharmacology has 156 been studied for over a hundred years. And, I think 157 the point here that's important is that those studies 158 have been conducted, you know, in many cases it does 159 in the above what you would see in a cigarette.

160 Q: Okay. And again, whether or not 161 those impacts apply to smoking, for just a minute, I 162 want to go and explore with you your knowledge of what 163 some of those impacts are, just the nicotine 164 pharmacological studies. And I know that you're not 165 going to be able to say all, but you have presentation, 166 blood pressure. What are some of the other effects?

167 A: There's effects on the GI tract. 168 There's effects on, you know, blood vessels in terms 169 of platelets and blood flow and blood pressure and 170 effects on the brain. You know, there is all kinds of 171 potential scientific literature studies in animals 172 that have purported different effects.

173 Q: Now, have others, other scientists 174 interpreted these studies to have applicability to 175 humans, even though the levels of nicotine are far 176 in excess of what are present in cigarettes?

177 A: Yes, I have seen specific 178 conclusions in certain studies whereby, you know, we 179 found this effect in humans, and this, therefore, may 180 be what's going on in humans.

181 Q: I think you didn't mean to, you 182 said, we found this effect, you mean in animals?

183 A: In animals, I'm sorry.

184 Q: Yes. Okay. All right. I take it that the animal dosing 185 of nicotine and the effects that those studies have 186 produced, you do not perceive as terribly relevant to 187 the smoking situation because of the difference in the 188 dose?

189 MR. FOWLER: Objection. Waive.

190 A: Yes, I mean, in many of the 191 studies - One doesn't publish a study that you don't 192 get an effect. Negative results don't give you a 193 publication. So, frequently, one will do scientific 194 studies to prove the substance has this 195 effect or to demonstrate an effect. And, so, 196 frequently, that then leaves a void in terms of, you 197 don't choose doses or you don't design the experiment 198 not to get the effect, okay.

199 And, frequently, when you start to 200 analyze what is the relevance of this study to a human

201 or the human smoking situation, frequently, and, you 202 know, we find that the levels of the material used, 203 the route of administration used, far exceed what 204 anybody would see in the smoking situation.

205 Q: Are there any pharmacological 206 studies done on animals that you believe do pose, 207 let's say, relevance in terms of impacts on humans?

208 MR. FOWLER: Object to the form.

209 A: Well, I think there is potential 210 for all studies to have relevance. I'm not trying to, 211 in any way, belittle the studies or dismiss them. I'm 212 trying to offer an opinion as to their utility in 213 making judgments to a smoker. Because I think the 214 most obvious situation is to observe the human. You 215 don't see it in isolation. You don't see overt 216 behavior changes. You don't see presentation. And, 217 frequently, in smokers, you can't measure blood 218 pressure effects, okay. So, I think that what's 219 important

here is that we don't have situations where (21) people are being widely affected by the nicotine or (21) the smoking experience.

(22) MR. FOWLER: Could we take a break?

(23) MR. CRANDALL: Sure. All right. We (24) can take one right now. Could we keep it down to five (25) minutes?

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(11) MR. FOWLER: Sure.

(12) MR. CRANDALL: Okay.

(13) NOTE: At this point, a recess was (14) had from 2:35 through 2:55 P.M.; whereupon the (15) deposition proceeded, viz:

(16) MR. CRANDALL:

(17) Q. Dr. Ellis, turning to Page 4 of (18) your opinion, at the top paragraph, you make a (19) statement that "nicotine, in cigarette does not cause (20) smokers to experience intoxication, pharmacological (21) tolerance to any intoxicating effects" and "significant withdrawal symptoms." That's what you say there, (22) correct?

(23) A: Yes.

(24) Q: All right. And, are there any (25) when you say the information with which you are (26) familiar, what are you referring to?

(27) A: The scientific literature.

(28) Q: All right. And, we'll get to the (29) list of documents that you've provided to us in a (30) second. But, are there any studies that stand out in (31) your mind, in particular, that support your opinion in (32) this regard?

(33) A: Well, in some of these cases, (34) quite frankly, it's widely accepted and documented.

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(35) Well, there is lack of scientific evidence that (36) smoking causes intoxication.

(37) Q: Okay.

(38) A: And it's clearly agreed, in terms (39) of the fact that smoking and nicotine does. Now, (40) nicotine certainly does might. But, within the (41) context of smoking, it does not.

(42) I mean, I'm not sure I understand (43) precisely what you want here, because that's quite (44) generally accepted, and I don't think there is any (45) dispute on that.

(46) Q: Okay. Well, that may be.

(47) A: Yes.

(48) Q: That will be the end of all.

(49) A: Yes.

(50) Q: But, is it your opinion, then, (51) that there is, basically, universal acceptance on the (52) statements in the top of Page 4 of your opinion?

(53) A: I certainly believe that of (54) intoxication.

(55) Q: Okay.

(56) A: And, obviously, then (57) pharmacological tolerance to any inos - If you don't (58) have any intoxicating effects, how can you have (59) tolerance to them? So, and that's one of the (60) premises.

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(61) Of that addiction definition and how the terms

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are (21) interviewed when you talk about classic drugs and (22) abuse.

(23) Q: Okay. So, we've put those two (24) aside. Now, what about significant withdrawal (25) symptoms?

(26) A: Well, I think that, you know, in a way, this is a judgment call. Some of the - The key (27) in term here is significant. One, when they stop a (28) behavior that they're used to doing, they may have (29) certain symptoms of anxiety that are not significant (30) in terms of, you know, behavior or pharmacology or (31) even medical health. However, if you stop a classic (32) drug of abuse, you're going to have significant (33) pharmacological and health-related withdrawal (34) symptoms.

(35) So, the kinds of things we talk (36) about here are things that are relevant to normal (37) descriptions of anxiety when you're used to doing (38) something, and then you stop doing it, it does not (39) seem right to you. Okay?

(40) Q: Okay. What are the withdrawal (41) symptoms, aside from anxiety-producing symptoms, that (42) you believe do occur as the result of stopping the use (43) of smoking cigarettes?

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(44) MR. FOWLER: Object to the form.

(45) A: Yes. There are a number of terms (46) that have been used to describe some of the (47) articulated withdrawal quote symptoms associated with (48) quitting smoking. My point here is, is that those (49) terms are identical to terms that could be used to (50) describe the stopping of any well-managed behavior.

(51) In other words, they're similar to (52) anxiety symptoms.

(53) Q: Okay.

(54) A: Okay.

(55) Q: No, that may be. It's fine. I'm (56) just trying to have you expand. You said anxiety (57) symptoms as a symptom that, to your knowledge, you are (58) aware is experienced. I take it, by some smokers who (59) quit?

(60) A: They seem to describe things that (61) are consistent with anxiety symptoms, yes.

(62) Q: Okay. Are there any -

(63) A: Some of them.

(64) Q: Okay. And, are there any other (65) terms about which you are familiar from the studies (66) documenting effects on people when they quit smoking?

(67) MR. FOWLER: Object to the form to (68) the extent -

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(69) A: Yes. I'm not sure I understand. I (70) mean, there are banned descriptions that are consistent (71) with the description of anxiety. And there are a (72) number of different terms that are used, you know, in (73) the context of anxiety.

(74) Q: Okay. But, in your opinion, does (75) it all come down to anxiety as a withdrawal symptom (76) from stopping cigarette smoking?

(77) MR. FOWLER: Objection.

(78) A: Yes. We're making terms here.

(79) Q: Okay.

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118 A: I'm not saying anxiety is the 119 withdrawal symptom. It can be one of them. But, I'm 114 saying there are a whole host of descriptions that are 115 consistent with one describing anxiety.

116 Q: Okay. Let me do it this way. You 117 used the term "significant" withdrawal symptoms, and 118 you say there are none; that nicotine does not cause 119 significant withdrawal symptoms, nicotine in smoking, 120 right?

121 MR. FOWLER: Object to the form.

122 A: The evidence that we have and is 123 even purported in the Surgeon General's report is that 124 many people have been able to quit; over 90 percent of 125 those without any assistance. And I think 126 is

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127 withdrawal with there not being significant withdrawal 128 symptoms, period.

129 Q: Okay. Well, significant withdrawal 130 symptoms, period, but withdrawal symptoms, there might be a definition of withdrawal symptoms that you are 131 using in this context, correct?

132 A: Well, again, I use the definition 133 of withdrawal symptoms as significant ones as those in a medical, as I already explained, with health, with 134 pharmacological tolerance to something, for example, 135 the fact that you need to have Methadone or something like that, you know, alleviating some of the pharmacological 136 effects that are observed. I mean some of these people 137 have the shakes, they're fat on their back, okay?

138 Q: Okay.

139 A: And barely conscious. So, what I'm 140 saying is that it's very clear, you don't need much to 141 get that a smoker has the ability and has demonstrated 142 that there are a significant number of people. As 143 many people that smoke now have quit. The Surgeon General has said that. And, he's also said that many 144 of them without any help whatsoever. That's 145 certainly observed that some of the nicotine gum and 146 patches, you know, 147 haven't rocket science here. 148 This isn't something that has alleviated smoking or

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149 has resulted in everybody quitting because they're unable to get nicotine in another form; that hasn't 150 happened either.

151 Q: Okay. I understand that. Had your 152 science 153 does not support the conclusion that 154 nicotine in cigarette causes smokers to experience 155 in intoxication, pharmacological tolerance 156 in intoxicating effects or any withdrawal symptoms. I 157 wouldn't be asking you these questions. But, my 158 question is, you used the word significant withdrawal 159 symptoms in the context of your paragraph. So I guess 160 the question is, what are the insignificant withdrawal 161 symptoms that your literature and experience has shown 162 do result, if any?

163 A: Withdrawal symptoms that are 164 consistent with the description of anxiety.

165 Q: Is that it?

166 A: Yes.

167 Q: Okay.
168 A: And there are many terms.
169 Q: Okay. Give me some of the terms.
170 A: Agitation, nervousness, you know. 171 There are so many of them I can't remember the whole 172 list. Anything that makes you anxious. I mean things 173 that you might do in response to being anxious.

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174 Q: Okay. All right. Now, with this as 175 your opinion, is it also your opinion that anybody who 176 wants to stop smoking can?

177 MR. FOWLER: (Addressing the court 178 report) Would you read that question back, please?

179 NOTE: The last question was read 180 aloud by the Reporter.

181 A: It is my opinion that there might 182 be certain individuals that have a unique set of 183 circumstances associated with them. They may be 184 genetic. There may be the history of either mental or 185 physical or drug abuse. But, they may-there may be 186 certain, very few proportionally, individuals that may 187 find it very difficult, and I think that that may be a 188 fact.

189 Q: Okay. But when you say finding it 190 very difficult, that still implies to me that if they 191 try hard enough, that one can quit. So that from what 192 you just said, I would take it that you think, you 193 would think, that everybody could stop smoking if they 194 just tried hard enough?

195 A: I think the vast majority of the 196 people could if they wanted to, really wanted to.

197 Q: All right. And, yes, there is a 198 small minority that you think can't stop?

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199 A: I wouldn't say can't. I would say it 200 is more difficult and have a, perhaps, 201 physiological basis that affects their ability to 202 control themselves.

203 Q: Okay. But that physiological basis 204 would be some other addiction or disease?

205 A: Or some other history, in potentially, yes.

206 Q: Okay. So that, in the quote 207 unique normal human specimen, with no complicating 208 pathology, you would think that everybody can stop 209 just smoking if they just try hard enough?

210 A: I think that there has certainly 211 been demonstrated that most people can.

212 Q: Okay. And I keep using "everyone," and I am using - What I'm trying to get 213 at and maybe we've already gotten at it is that if 214 there is any kind of, if there are any people who 215 can't stop, those are very few in number and have 216 special circumstances attached to them, and the rest 217 of the population, in your opinion, should be able to 218 stop?

219 MR. FOWLER: Object to the form.

220 A: Yes.

221 Q: Now, have you, yourself, ever

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222 experienced, had the personal experience of knowing 223 someone who believed that they

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could not stop smoking?

111 A: I certainly know people that have 112 smoked most of their lives, yet.

113 Q: And, with those people who have 114 smoked most of their lives, have some of them 115 indicated to you that they have repeatedly tried to quit?

116 A: Some of them have indicated that 117 they have quit for a period of time, but have gone 118 back.

119 Q: All right. Have any of those 120 people indicated to you that they believe they are 121 addicted?

122 A: Again, I think many people, lay 123 people, especially, use that term very freely. You 124 know, repeated behavior can be an addiction. So, I, 125 you know, I don't rule that out, although I don't 126 recall any specific instance.

127 Q: And, right now, I'm trying to leave all in on your personal experience more than your science 128 experience, just in your relationships, whether you are 129 aware of people who consider themselves and have told you, gee, I have tried to quit. I can't quit. I just 130 need to smoke, have you experienced that?

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131 A: I can't say I have experienced 132 people saying I need to smoke. I have experienced 133 people saying, I like to smoke. I want to smoke, and 134 although I've quit before, I want it, and I want to smoke.

135 Q: Okay. So, your answer has to do with experience of someone who told you that they had done everything they could, but just couldn't quit?

136 A: No.

137 Q: And that was a little, the first question and answer, very a little ambiguous backed up 138 one other, your answer would be, no, you have never indicated that experience?

139 A: I have never had that experience.

140 Q: Okay. Now, in the next paragraph 141 on Page 4, of your - Before I do that, during the 142 break, did you discuss your testimony at all with 143 Counsel?

144 A: Well, we discussed the weather.

145 Q: Okay. And what about during lunch? 146 Did you discuss your testimony during lunch?

147 A: I think we discussed some 148 attorney/client privilege issues at one point and that was my recollection.

149 Q: Here we go again. When you say

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150 attorney/client privilege issues, you discussed how to respond to certain questions or -

151 A: No. I wasn't shown anything. No, 152 it was merely, again, in terms of the advice of, if 153 there is an attorney/client privilege situation, you 154 can talk about everything but the content of the 155 discussion.

156 Q: Okay. All right. That's what you 157 talked about?

158 A: That's it.

159 Q: Anything else?

160 A: That I recall.

161 Q: I'm not talking about the weather. 162 I'm not talking about the weather. I'm not talking 163 about Christmas. I'm talking about the substance of 164 your testimony.

165 A: That's what I recall.

166 Q: All right. The second paragraph on 167 Page 4 talks about Philip Morris' research is similar 168 in character to research conducted by outside 169 scientific and medical communities. Do you see that?

170 A: Yes.

171 Q: Now, is that an opinion that you 172 have expressed in other cases, as well?

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173 A: Yes.

174 Q: And, on what do you base that 175 opinion? 176 A: A review that I've performed over 177 the last number of years, looking at the scientific 178 literature relative to smoking, and also looking at 179 the internal documents in terms of the research the 180 Company has sponsored and performed.

181 Q: Okay. Please be more specific with 182 me as to what your review has enabled. You say over 183 the last couple of years I have done this. I would 184 like for you to be as specific as you can in 185 describing what you did in order to reach the 186 conclusion that Philip Morris' research is similar to 187 that conducted by outside scientific and medical 188 communities.

189 MR. POWELL: Object to the form.

190 A: Yes. It's very difficult to be 191 specific when you're talking about an extremely broad 192 topic. However, I will say that, again, the process 193 was to look at the literature back in the 30s and 194 40s and look at the R and D documents in terms of the 195 discussion of that literature, what we did, you know, 196 the research we sponsored, where that research went, 197 what was published, what was known in the scientific

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198 community versus what we knew internally, and the 199 process has been a parallel process of going through 200 these documents, internal and external.

201 Q: Okay. Let me try it this way. 202 Let's assume you're at trial, and I am asking the 203 questions at trial on behalf of Philip Morris, just 204 for a second, okay.

205 Q: Well, how did you go about examining Philip Morris' research protocol?

206 MR. POWELL: Object to the form of 207 the question.

208 A: I'm not sure I understand what you 209 mean by their research protocol.

210 Q: I didn't do a very good job with 211 my first question as Philip Morris' lawyer. Okay.

212 Q: The problem I'm having again is 213 this, though, isn't it? When I asked my last 214 question, I said, what do you base your opinion

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on 119 You were very general. You said, well, it's time. 120 It's a very general question, and I'm trying to focus 121 us down into the facts supporting your opinion, within 122 reasonable time limits. So, if there is a way that you 123 can explain to me, particularly, how you went about 124 determining that Philip Morris' research is similar to 125 outside research, going back in time to that two-year

126 period when you started bringing it up to the present, 127 that would be most useful, if you can do that.

128 MR. FOWLER: Object to the form of 129 the question.

130 Also, I don't believe there is any 131 two-year limitation.

132 MR. GRANDALL: No-no. No-no. There 133 is no two-year limitation. I think the witness had 134 said about 135 years ago I went back, and-

136 That's part of the process, and 137 three years ago, but also my experience, you know, at 138 Philip Morris is certainly a factor in that, also. I 139 can't be more specific because the process involved 140 extensive analysis of literature, both internally and 141 externally, and there are a number of different areas 142 and points that clearly can be discussed and brought 143 up.

144 So, you know, I'm trying to be 145 helpful here. But, when I'm trying to describe the process of doing an extensive literature search, 146 having files and documents, internal 147 and 148 documents of a variety of different topics, looking 149 back at the R and D history of research in similar 150 areas, doing extensive internal documents, 151 looking at what we knew when 152 it relates to the

153 external scientific community in all kinds of smoking 154 and health-related questions.

155 Q: Okay. Well, painful as it may be, 156 I'm going to try to explore these in some detail with 157 you, because I hope you appreciate my concern in terms of needing to know the bases of your opinions at the 158 time you testified.

159 A: Right.

160 Q: When you conducted this extensive 161 literature search, what did you do and how did that 162 assist you in comparing Philip Morris to the outside 163 world?

164 A: Well, I went to the library and I 165 got some general topical searches done. I ordered the 166 documents of the papers through the library, and, in 167 many of those, you know, chronicled, especially 168 early on, because I'm are more familiar with more 169 recent materials, but chronicled some of the 170 progression of the external knowledge on a variety of 171 topics. And then I also did, independently, review 172 our central file in terms of the history of R and D, 173 the topics that were researched over a period of time, 174 and the projects and looked at, in specific categories 175 and, in general, as to how Philip Morris responded and 176 in what scientific state their knowledge was relative

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111 to what was known externally at the time.
112 Q: Okay. Was the literature search 113 done externally? Was it an external literature search?
114 MR. FOWLER: You mean of external 115 literature?

116 Q: Well, was it a literature search 117 within Philip Morris or outside Philip Morris?

118 A: Wow. It was certainly using data 119 bases that were external to Philip Morris.

120 Q: What were the principal data 121 bases?

122 A: Well, there are, for example, 123 BioServ or certain biomedical data bases of topical 124 literature, and I'm not familiar, Medline or whatever, 125 that have in it the data bases that our library uses 126 so they're widely available.

127 Q: Okay. All right. And, did you, 128 when you began this comparison, did you consult 129 anything to writing? In other words, did you give 130 directions to your librarian as to what you wanted 131 done or anything like that?

132 A: In some cases I have specific 133 searches, on different topics in some cases.

134 Q: Okay. And-

135 A: And, in other cases, I have

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136 notebooks of actual papers put together.

137 Q: Okay. And, have you produced these 138 files? Have these been produced in this case?

139 A: I think everything has been 140 collected in my office. What's been produced I'm not 141 familiar with.

142 Q: All right. And, of the searches 143 that were done externally, that is, not within Philip 144 Morris, you're aware of Medline. Are you aware of any 145 other research organizations that were used?

146 A: Again, they do the searches. I 147 don't do them, so no.

148 Q: What topics were researched?

149 A: Well, certainly, there are topics 150 in epidemiology, there are topics in nicotine, there 151 are topics in addition, there are topics in, I think 152 those are largely the general topics. They're 153 specific, then, in terms of looking at the specific 154 projects within R and D that we did, then looking 155 outside as to what was known at the same time. So, the 156 process was one of that. There are certain key things 157 that I would do searches on, and then look 158 inside, and there are certain projects inside that I would do searches on and find and then look 159 outside as to what was known. So it was a cross process.

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160 Q: Is any of this committed to 161 writing anywhere?

162 MR. FOWLER: Object to the form.

163 A: There are papers and searches. The 164 analysis, in some cases, - There are time lines, per se, but very few.

165 Q: Okay. Would you mind looking at 166 the end

of your C.V. and just flip through there, and in it's one, two, three, four, five, six, seven pages, (10) that looks to me of.

(11) A: My C.V?

(12) Q: No, no, no, no. The Philip Morris (13) documents relied upon.

(14) A: Oh, okay.

(15) Q: Cathy Ellis, Ph.D., dated August (16) 31st, 1998.

(17) A: Right.

(18) Q: Do you see that?

(19) A: Right.

(20) Q: Okay. Are there any documents in (21) there that (22) the work you did comparing Philip Morris research to the outside scientific and medical (23) communities?

(24) A: Yes, asking are there any (25) documents that (26) prepared or were generated (27) by (28) INBPO or CRC?

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(29) of that review? No. There are (30) these (31) the (32) actual documents that provide the evidence (33) for example, publications by INBPO and CRC.

(34) Q: Got you. No, I understand.

(35) A: Okay.

(36) Q: Okay. Actually, this document (37) probably is representative of a request (38) I had (39) INBPO and CRC of their documents and publications.

(40) Q: Okay. So this one looks like a (41) request that you made that was part of (42) your (43) participation.

(44) A: Yes.

(45) Q: Okay. Are there any others, (46) (47) from the last (48) that pertains to your (49) staff (50) your own written statement of Philip Morris (51) research versus the outside world?

(52) A: Well,

(53) MR. FOWLER: Object to the form.

(54) A: There are, you know, the (55) letters here that show this point in terms of how (56) Philip Morris was relating to the (57) world. So, (58) letters from Seman to Hoffman or letter from Hoffman (59) to Seman shows the interaction with the (60) scientific (61) community. There are, for example, phone, and wherever.

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(62) you see some of these general documents that (63) tell (64) the phone, that, basically, these are (65) representative documents that show some of these (66) points in terms of what was going on.

(67) Q: Okay.

(68) A: Um-

(69) Q: Okay. I have the very last (70) document which is reflected as, it says publications (71) by INBPO.

(72) A: INBPO.

(73) Q: INBPO/CRC?

(74) A: Correct.

(75) Q: That was, you believe, a request (76) by you to somebody to do something?

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(77) A: That's correct.

(78) Q: Okay. And that's the only document (79) in this list that is of that nature, correct?

(80) A: Well, I can't say that.

(81) Q: All right. Well, let's go through (82) it, I want to be, because I understand what I think (83) you are saying, and what I think you are saying is (84) that the vast majority of these documents are (85) documents that presented your involvement in this (86) project. They were there, and they're what you are (87) basing your opinion on. That's not what I'm interested

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(88) in right now.

(89) MR. FOWLER: Is that a question?

(90) A: Yes, I'm not sure.

(91) Q: I want to know if I'm right or I'm wrong in that assumption.

(92) A: Most of these certainly (93) presented, and that one certainly, you know, I'm not (94) sure what the date is of this particular one. I get (95) updates, so this looks like a '98 update, but I have (96) had, for a number of years now, a list of publications (97) by INBPO/CRC, so that looks like the most recent (98) update.

(99) Q: Okay. And, what, when you say "the (100) most recent update," what do you think that document (101) consists of?

(102) A: A list of the publications of (103) INBPO and CRC.

(104) Q: Okay. As of a particular date and (105) time?

(106) A: Yes. It looks like it's 1998.

(107) Q: All right. Now, have you had an (108) opportunity to flip through those seven pages to see (109) if there are any other documents that would have been (110) created by you in connection with preparing your (111) opinions here?

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(112) A: I don't believe I prepared any (113) documents, as I indicated before. I used these as the (114) bases.

(115) Q: Okay. Except for, perhaps, the (116) last one?

(117) A: I didn't prepare that.

(118) Q: Okay. But you requested that it (119) be?

(120) A: But I've gotten similar updates (121) for a number of years now.

(122) Q: Okay. Is there anywhere existing a (123) written outline of the results of your work over the (124) past two years involving comparing Philip Morris' (125) research that was conducted in-house with that (126) conducted by outside scientific and medical (127) communities?

(128) A: I think the best way to (129) characterize my files is that there are various files (130) with documents collected under various topics, and (131) sometimes there is a literature search from the (132) library with abstracts from which I would select the (133) documents I would require. They would give them to (134) me, and then I would take a look at specific questions (135) and topics. These areas are very broad. There is no (136) overall, you know, general document that describes

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(137) everything.

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121 Q: Well, when you prepare to testify 121 in this case as a witness, what are you going to look 121 at, if anything, before you testify about Philip 121 Morris' research being similar to that being conducted 121 by outside scientific and medical communities?

122 MR. FOWLER: Are you asking about 122 just immediately before the testimony or something 122 in the past?

123 Q: Between now and the time that you 123 testify.

124 A: I would look at what is brought up 124 in trial and look to address that with the reviews 124 that I have.

125 Q: Well, as I understand what you 125 said, maybe two years ago or more, you 125 testified on a project where you said, I want to see 125 what Philip Morris was doing in-house and compare it 125 to what the outside scientific and medical communities 125 were doing, right?

126 A: And, that was not a project that 126 could be undertaken, in a day or even a week or a 126 month, correct?

127 A: That's right.

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128 Q: All right. Would it be accurate to 128 say that that project may have taken a year or more?

129 A: I would say it's accurate to say 129 it's ongoing.

130 Q: Okay. So, over the last two or three years, that project has been ongoing by you under your 130 direction, correct?

131 A: Well, let me see. There are several 131 issues that come up. One of the roles that I believe I 131 have is, and one of the issues that we've had, is our 131 ability to respond to media, to certain regulatory 131 issues or whatever. And, in a way, for example, 131 submissions to regulatory agencies and things like 131 that. So, some of the reviews relate to that process, 131 also. Some of the literature is some of the files. The 131 files are very diverse.

132 There are ETS things for 132 recent submissions to the national toxicology program, 132 there is, you know, history of studies of what we've done 132 on ETS. There are recent studies and things like that. 132 So, I can't characterize my files and documents as 132 being just associated with the literature. There are a 132 variety of other things. I just don't want to 132 characterize my testimony 132 excluding any data or 132 knowledge I might have.

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133 Q: Right. I understand that, I'm not 133 trying to exclude anything, but I am certainly trying 133 to get a handle on this. That's what I'm trying to do.

134 A: I can't - This is a huge task.

135 Q: No question.

136 A: And, these are examples of some of 136 the points, requests and letters and communications, 136 in some of the publications and communications, comments 136 in various regulatory agencies, their representative 136 of some of the things, and some

of the points that 133 would be made, yes.

137 Q: But, didn't you, as information 137 came back to you from your request, didn't you, at any 137 point, write down points, specific things that would 137 support your testimony evidencing the similarity 137 between Philip Morris and the outside medical and 137 research communities? I mean, how do you do that if 137 you don't, if you - I don't understand how to get a 137 handle on it or what your testimony will be, other 137 than a very general nonspecific statement such as 137 contained here.

138 A: And, if that's all it's going to 138 be, fine. But, I suspect it's going to be much more 138 detailed than that and that's why I'm asking you for 138 details.

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139 MR. FOWLER: Object to the form of 139 the question.

140 A: I have not prepared my testimony 140 for this case. I don't know what's going to be brought 140 up in the trial. I don't know what questions I'm going 140 to be asked in the trial. I know I have files, and I 140 tell you, I have made it a point to not ever - To 140 me always go back to the original source of data. I 140 think that's extremely important. Otherwise, you're 140 creating things and sometimes you lose things in the 140 process. I think that this, the actual documents 140 itself 140 will be what I rely on because that is the evidence.

141 Q: I'm sorry. When you say the 141 actual documents itself is what you rely on, -

142 A: Right.

143 Q: -what do you mean?

144 A: My files. There is nothing else 144 that I would rely on but the original evidence.

145 Q: So, you don't have a notes or 145 an outline or memoranda sent to people about topics -

146 A: Some.

147 Q: -or extensive literature 147 searched?

148 A: Just like with these INHIBO 148 publications, there are other outlets that people

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149 have prepared on certain files, yes.

150 Q: Do you have those anywhere?

151 A: They're in the files.

152 Q: Okay. What files are they in?

153 A: The files with these various 153 topics. There's a file, for example, on analogues and 153 the information here on analogues would be in there. 153 Okay?

154 And anything that anybody has 154 given me or prepared would be in that file.

155 Q: Okay. And that file would be 155 not 155 of a literature search comparison file?

156 A: Or, there would be a literature 156 search 156 and then there might be information from 156 internal documents. It would be all there.

157 Q: Okay.

158 MR. GRANDALL: I'd ask that that 158 be 158 produced, Counsel, that file.

159 MR. ELLIS: Well, it's being 159 collected.

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121 MR. CRANDALL: Well, if it's in a 122 file in a format that will add meaning to the 123 testimony, then I would ask that it be produced.

124 MR. FOWLER: We'll just have to go 125 through the normal procedures for the production of

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126 documents, and so forth.

127 Q: What do you call this file, Dr. [B] Ellis? Is there a word you use?

128 A: I have, probably, 15 to 16 file 129 cabinets. And the topics range from a number-- All 130 kinds of topics, nicotine analogues may be a topic, 131 addiction definitions may be another topic, 132 epidemiological studies may be another topic, 133 animal 134 inhalation studies may be another topic. And the 135 external literature would be in there and everything 136 that's been provided, to my knowledge.

137 Q: Well, let me do it maybe this 138 way. This, as I'm talking "this," I'm talking 139 about the seven-page compilation that started August 11, 140 1998. That's at the 141 end of exhibit 1.

142 Does this seven-page document list 143 everything that's in those 15 144 files?

145 A: No. They're representative of what's in those files.

146 Q: Okay. Would it be accurate to say 147 that what these seven pages comprise are a 148 very small fraction of the 15 149 files?

150 A: It would be accurate to say that.

151 Q: Okay. Now, going back to this 152 second paragraph on Page 4, the second full paragraph.

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153 I guess it is the second paragraph, can you tell me, 154 specifically, what you believe are the key 155 messages 156 showing, the key documents, if any, showing the 157 similarity between Philip Morris' research and that 158 connected with outside scientific and medical 159 communities?

160 MR. FOWLER: (Addressing the court 161 re-ported) Would you read that 162 passage?

163 The requested question was 164 read about by the Reporter.

165 Q: What are the key documents, Dr. 166 Ellis, that you expect to use at trial to show that 167 Philip Morris' research is similar in character to 168 that conducted by outside scientific and medical 169 communities?

170 A: The key documents are listed here.

171 Q: Are those all of them?

172 A: No. You said, what are the key 173 documents? I think that these documents represent 174 some of the key points. For example, the points about 175 analogues and interactions with the scientific 176 community on analogues, for example, some of the 177 points on Dr. DeNoble's work and how it might have 178 related to the external scientific community. So, many 179 of the key points are right here.

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180 Q: Okay. Right on those seven pages?

181 A: Yes. They are representative 182 documents

here that cover many of those key points. 183 I'm not saying it's all of them, because I'll say, for 184 example, in Dr. DeNoble's literature, there may be, you 185 know, 13, 14, 17 studies on positive reinforcement of 186 nicotine before he ever did anything. So, I did not 187 include all of those, okay.

188 Q: Okay.

189 A: And I don't think it's necessary 190 to.

191 Q: All right. Okay. Let's drop down 192 to the -- Well, you know what, the very next paragraph 193 is a little unclear to me. You say, and if you just 194 read it to yourself, the thing that I'm concerned with 195 is the last fragment of it that says, "It is my belief 196 that the research conducted or sponsored by Philip 197 Morris, with which I am familiar, is consistent 198 with 199 my views as expressed above," and I don't know what 200 your views as expressed above is referring to. I 201 don't know what that paragraph is supposed to modify.

202 A: Well,--

203 MR. FOWLER: Walk a minute. Is 204 that a question?

205 Q: Yes, it is a question.

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206 The question is, when you say, 207 "...consistent with my views as expressed above," 208 what do you mean?

209 A: Okay. Well, let me read the whole 210 paragraph. "I will testify based on my understanding 211 of the public literature on smoking and health and on 212 nicotine and addiction that it is my belief that the 213 research conducted or sponsored by Philip Morris, 214 with which I am familiar, is consistent with my 215 views as expressed above."

216 What that's trying to say is that 217 there is nothing in the views that I am expressing 218 that are connected, you know, specifically connected, 219 in terms of data, I mean, there might be opinions 220 that 221 are different, but specifically connected. In other 222 words, the research supports the view.

223 Q: Okay. Which views as expressed 224 are you talking about?

225 A: The ones expressed above on 226 smoking and health and nicotine and addiction. It's 227 in 228 that sentence.

229 Q: Well, I guess we'll go through the 230 whole report if we have to. Are you saying in this 231 paragraph that the research that has been conducted 232 by Philip Morris internally or sponsored externally is

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233 consistent with your opinions elsewhere in the report 234 about nicotine and nicotine addiction?

235 MR. FOWLER: Object to the form.

236 A: Yes, I'm not sure what you're 237 asking because it's pretty clear to me that what I'm 238 trying to say here is that the Philip Morris work is 239 consistent and the data are consistent with the 240 opinions expressed.

241 Q: And that's fine, if that's what 242 you're saying, but that's not as I read the sentence. 243 I

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just don't see, when you say "...consistent with my
112) views as expressed above," and then I ask
public literature on 114) smoking health, and on
nicotine and addiction, that's, 113) to me, running
around in a circle.

116) MR. FOWLER: I object to Counsel's 117) com-
ments. It's not running around in circles.

118) MR. CRANDALL: Well, I'm not saying 119) del-
iberately so. I'm just trying to say that I would 120)
move along if I could understand what this
paragraph 121) is supposed to modify. Let me try it
this way.

122) Q: Is this paragraph just supposed to 123) be a
modification of your opinions in this case? In other
124) words, the opinions that you're expressing on
Exhibit 125) 1 are supported by research con-
ducted or sponsored by

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11) Philip Morris, is that basically what you're
saying? Because, if it is, then

12) A: Let me go back. Paragraph 2 14) relates to
Philip Morris' work versus external scientific
community work, the interactions and who 16)
knew what, when, and where.

17) Q: Right.

18) A: And Paragraph Number 3 18) is based on more
on the context of the Philip Morris work. In 19)
other words, the data, and what it implies is 111)
consistent with the views I've expressed on
smoking, 112) and health, 2 is a risk factor, and
addiction, 3 is 113) the definition and the issues
associated with that pathogenesis.

113) Q: Okay.

114) A: Does that help?

117) Q: Yes.

118) A: Okay.

119) Q: Is there help. Because smoking -- for Okay.
That helps, so, okay.

121) So, basically, Internal Company 122) data and
the Company-sponsored research support the 123)
first paragraph on Page 3, and I'm not making it to
124) that. The first paragraph, Page 3, second full
125) paragraph, Page 3, third full paragraph, Page 3,

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11) fourth, full paragraph, Page 3, the first para-
graph on 12) Page 4, is that right?

12) A: We expect me -- If you're implying 14) that we
did epidemiological studies, no, Okay? If 15) you're
implying trying to say in that statement 16) is
that I'm just sitting here saying that national 17)
studies have not shown a dose response or lung
tumors, 18) or that criteria are sufficient for
causation or there 19) is a mechanism known of
cancer arising in Philip 120) Morris' data that I'm
aware of is this data. That's 121) what I'm trying to
say, is that, based on my review of 122) Philip
Morris' previous work, that the data that 123) have
looked at and observed is consistent with the 124)
view that expressed in these other paragraphs.

119) Q: Okay.

124) A: That's -- Okay?

117) Q: Yes. Thank you.

118) A: All right.

119) Q: Now, let's go on to the second to 120) the last
paragraph on Page 4 that talks about design 121) of
cigarettes.

122) A: Uh-huh.

123) MR. FOWLER: This is sort of a long 124) para-
graph so why don't you just take a minute and
read 125) it?

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11) MR. CRANDALL: Sure.

12) A: Uh-huh.

13) Q: Okay. Let's just go sentence by 14) sentence
through this. In the design of cigarettes, 15) Philip
Morris has responded both to scientific 16)
criticism and to smokers' demands by attempting
to 17) remove, selectively, certain compounds to
reduce the 18) overall quantity of smoke delivered
from cigarettes. 19) Okay, that's what you say,
correct?

114) A: Yes.

111) Q: Okay. Can you be more specific now 112) in
terms of, specifically, how Philip Morris has 113)
responded to scientific criticisms?

114) A: Sure. And we could go on for 115) quite some
time. But, there have been scientific 116) studies
that have been sponsored. There has been a 117)
cooperative work with the Government in the
NCITWG or 118) Tobacco Working Group to look
at the design of 119) cigarettes. We have funded
and worked with the 120) American Health
Foundation in terms of evaluating 121) cigarettes
and cigarette design and ingredients that 122)
specifically, in terms of specific reductions of 123)
compounds. We have a history of research trying
to 124) understand Benzo-(a)-pyrene. We have a
history of 125) research trying to understand
N-nitrosamines. We have a

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111) history of research on CO or carbon monoxide
112) analysis. I'm looking at metals and smoke,
cadmium 113) in particular, phenols, et cetera.

115) So, there are specific or 116) selective reduction
bodies of research that have been 117) done
internally and then, in terms of general 118)
reduction, it's very clear that filtration has been a
119) process, but also the design of cigarettes in
terms of 120) filtration, in terms of making them
more acceptable to 121) the consumer and the fact
that we now have a wide 122) range of cigarette tar
deliveries and that tar and 123) nicotine deliveries
of cigarettes have been reduced 124) within the
last 30-40 years by, you know, a 125) significant
percentage, certainly over 50 percent 119) relative
to nonfiltered cigarettes. And we offer a 116)
cigarette with only one milligram of tar and 117)
milligram of nicotine, which, the nicotine del-
ivery is not not substantially different from a
Demic cigarette.

121) So that's in general, and I could 122) go on even
longer, some of the outline of what's been 123)
done.

122) Q: Okay. That question had to do with 123)
responding to scientific criticisms. What about
124) responding to smokers' demands?

125) A: Right. In the context of smokers'

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111 demands, much of, I think the issue is, as you reduce 112 to make an acceptable cigarette. For example, we 113 have situations now where we are trying to reduce 114 components of tar in the industry in terms of Premier, 115 Eclipse or even our Accord System. And, I think as 116 issue here is trying to make that an acceptable 117 product to consumers. So, you know, whether or not 118 they will use that particular product depends on its 119 overall acceptability, and I think it's very important 120 that we look at that and try to make it as acceptable 121 as possible.

122 Q: And in what sense are you using 123 acceptable?

124 A: Well, you buy it.

125 Q: Okay. And so, when you say that 126 Philip Morris has responded to smokers' demands, 127 that's also supposed to be modified by attempting to 128 remove, selectively, certain compounds?

129 A: Well, that, and, yes, there's been 130 a long history in terms of public health community and 131 in terms of some of the literature. Richard's 132 Diegel, for example, you know, looking at filters, 133 identifying lower tar cigarettes, looking at 134 all the 135 on Nitroamine or Nitro-(X)-pyrene. So, in some 136 ways, the 137 is on that and the public health

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138 community being a representative also. So, it's not 139 just the acceptability from the smokers' standpoint. 140 It's also the public health community request that I'm 141 referring to.

142 Q: Okay. So, when it's talking about scientific criticisms and smokers' demands, it's 143 trying to make the cigarette safer that Philip Morris 144 is responding to?

145 A: Well, IER: Object to the

146 A: Let me help you out with that one. 147 Because with a scanner and, in terms of the word 148 safe, I don't know how to measure that. So, what I 149 would say is that, more accurately, is the way 150 it's worded here, in that, over the years there have been a 151 number of cigarettes. What the impact of those 152 criticisms is on the risk factor 153 well, I have no idea. But I think anybody 154 really has any idea. And, if I'm saying, I think there has been some data by Winder 155 very early on that indicates that even 156 Benzo-(X)-pyrene and Nitroamine levels aren't 157 going to give you some of the data that they

158 So, I don't know how to measure 159 safe. I do know how to respond to criticisms. 160 I do know how to respond to smokers' demands, and what 161 I'm trying to say is that we have.

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162 Q: Okay. And, what are the compounds in that have been selectively removed over the years?

163 A: Well, phenol, phenols is one good 164 example. The filter is relatively efficient at 165 removing phenols. Volatile Nitroamines are also 166 fairly efficiently removed by the filter.

167 Q: I'm sorry. What kind of 168 Nitroamine?

169 A: Volatile.

169 Q: Okay.

170 A: We've attempted, in a number of 171 different areas, for example, on CO to develop a 172 specific analyzer, but that is not technically 173 feasible. And there have been a number of other 174 studies. And I will say that, in the context of our 175 court system, that there is a significant reduction of 176 both Benzo-(X)-pyrene and Nitroamines in that 177 system, as well as other chemical constituents.

178 Q: Okay. And, when was the Accord 179 System introduced?

180 A: Within the last year or so.

181 Q: Now, likewise, when were filters 182 installed to remove phenols or efficient to remove 183 phenols?

184 A: Well, filtration actually started

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185 in the '50s, and there was virtually a peak in the 186 late '60s and early '70s where there was a huge 187 increase in filtration and virtually 90 percent of the 188 products were filtered at that point. Now, virtually 189 well over 98 percent, I think, are filtered.

190 Q: Has it been an evolution in filter 191 technology or just the fact that more people are 192 smoking filtered cigarettes that has resulted in the 193 change in the market?

194 A: Well, it's not just filters. 195 That's a very complex question. First of all, I may 196 ask you in about five minutes to repeat that one. But, 197 in terms of evolution of filter technology, there has 198 been an evolution of filter technology. Many things 199 have been looked at. Materials have been looked at, 200 and, where appropriate, certain things have been 201 utilized in the context of the commercial cigarette. 202 And I'll give you an example. Merit Ultra is a 203 one-milligram cigarette. And, in the case of that 204 filter is a paper core. It's called a paper core 205 concentric filter. And what we found was that a paper 206 filter was more efficient at filtering, but it 207 created, if you used just paper, a cigarette that was 208 not acceptable to the consumer.

209 So what we did was design a filter

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210 that, basically, had a paper core, but had cellulose 211 acetate on the outside and that that created an 212 acceptable cigarette to the consumer. So that what's 213 inside a cigarette, you know, has changed and 214 different technologies have been looked at and 215 developed over the years.

216 Now, in the context of moving to 217 lower tar, obviously, there has been a great 218 progression of products. Right now the sales-weighted 219 tar average in the United States is around 11 or 12 220 milligrams. You know, 30 years ago, it was probably 221 about 40 milligrams, 36 to 40 milligrams.

222 So, you know,--

223 Q: I'm sorry to interrupt you. You 224 said sales-weighted tar?

225 A: Tar average.

226 Q: What does that mean?

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119 A: Well, it's, basically, a figure 119 that is representative of the average cigarette sold 121 in the United States, the tar delivery of the average 121 cigarette sold in the United States. Okay?

121 Q: Okay.

123 A: So you weight the delivery by the 124 sales volume, okay.

125 Q: Okay. Got you.

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111 A: Okay. So, fundamentally, we not 121 only provide cigarettes with dramatically lower tar, 121 but we also have been successful in making them 121 acceptable to consumers. And, we have had to devise 121 ways of making them acceptable to consumers 121 as I have 121 just given you an example of in terms of Mentol Ultra.

117 Q: Okay. And I didn't mean to 117 interrupt your train of thought. If you weren't 117 through talking about selectively removing certain 119 compounds, then talked about the filter technology. 111 Yes, talked about lower tar. Are there others? There 117 are other things?

119 A: Okay. It's not just as simple 114 as just the filter, because you can put a filter on a 119 cigarette and you will just come down with the tar 114 level that you would find in the 7D. So there's 117 been a combination, for example, the filter dilution 119 where you actually dilute the smoke with air. There is 117 paper porosity, so the porosity of the paper, you can also permeate into the cigarette. And I think a big 121 factor, and many people don't know about this, is that 121 we expand tobacco, which means that we basically puffing it so you can use less tobacco to fill the rod. If 121 you use less tobacco, there is less tobacco weight in 121 the rod, you get less tar, then, once the cigarette

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111 has been. And, I think that has been a key factor 121 in getting down to one milligram. You can't get 121 an acceptable one-milligram cigarette without doing that.

111 NOTE: Another point, a recess was 111 and from 3:35 P.M. to 4:07 P.M.; whereupon the 117 deposition proceeded via:

117 BY MR. POWELL:

119 Q: All right. Dr. Ellis, I am going 119 to leave, temporarily, going through your expert 119 report with you. To go to a completely different 111 subject so you're not taken back at 117 switch gears on 117 you. I'm going to come back to this, but I do want to 117 cover some other things first.

114 Does 114 that I touch upon all the 119 options you expect 114 to be at trial?

119 A: In general, yes.

117 Q: Well, I say "In general." What 119 does that mean?

119 A: Well, you said "In general," 121 because I think you said "touch upon," so, yes, 121 I think the options would be generally related to the 121 topics discussed in Exhibit 1.

123 Q: Well, put it differently, is there 121 anything else you expect to do between now and the 121 time of trial in terms of developing, formulating or

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111 expanding upon your opinions?

121 A: No.

121 Q: Now, these questions have to do 121 with your own personal views and whether it's personal 121 or professional, I'm just asking you, as an 121 individual, what you believe. Do you believe that 121 advertising impacts tobacco use?

119 MR. POWELL: Objection to the 119 extent it calls for an expert opinion beyond her area 119 of expertise.

111 A: Again, I have not reviewed that. 112 I'm not an expert in the area. My understanding is 113 that advertising does not induce smoking. It may 114 influence what brand one smokes, and that's my 115 understanding.

119 Q: Okay. And, in terms of your 117 position within the Philip Morris hierarchy, to whom 121 do you report?

119 A: I report to Mike Samanick (ph. 121 201 SPG.), President of the Company.

121 Q: What is your title today?

121 A: Senior Vice-President of Worldwide 121 Scientific Affairs.

124 Q: And how many other individuals 121 report directly to the President?

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111 A: About 12.

121 Q: How many years have you been 121 employed by Philip Morris?

119 A: Since 1980, 18 years.

121 Q: And, during those 18 years, have 121 you had any occasion to become involved in the issue 121 of advertising and its impact on tobacco use?

119 A: Directly, no.

119 Q: All right. On what is your 119 personal knowledge based?

111 MR. POWELL: Objection.

112 A: Again, very indirect discussions 119 or readings in the media regarding other people's 114 depictions, perhaps, on that topic.

119 Q: Okay. Are you also aware of a 119 contrary view; that is, that advertising does, in 117 fact, contribute to the initiation or uptake of 119 underage smoking?

119 A: I guess. I guess. I assume there 121 is a contrary view. I'm not specifically aware of who 121 has that view.

124 Q: Are you aware of the details of 121 that position, in other words, what research has been 121 done to support it?

121 A: No.

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111 MR. POWELL: Objection.

121 Q: Does it concern you in any way?

119 MR. POWELL: Objection.

119 A: I can't be concerned over 119 something I'm not aware of right now, so -

119 Q: All right. What do you see is the 117 appropriate role of the Government in regulating 119 tobacco use, if any? And, by way of a prelude, 119 in

that you've already indicated in your testimony your (1a) view that you thought the warning labels on cigarette (11) packs were appropriate?

(12) A: Uh-huh.

(13) Q: All right. Do you believe that the (14) Government should be taking any other additional (15) efforts in regulating tobacco use?

(16) MR. FOWLER: Objection.

(17) A: I think that is a question that (18) requires two different answers. I don't see anything (19) that would change, specifically, in my opinion, (20) relative to if we are regulated in any way different (21) than we're regulated right now. And I have to say (22) that we are regulated by a number of different agencies, (23) including the FTC, the Bureau of Alcohol, Tobacco and (24) Firearms. We submit information to the Health and (25) Human Services departments, and, obviously, there

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(1) is considerable regulation already.

(2) So, I guess, I don't know what (3) you're referring to in terms of regulation, and I (4) don't know what impact that might have.

(5) Q: Okay. Let me try and be more (6) specific. Do you disagree with the notion that (7) advertising, tobacco advertising should be banned?

(8) MR. FOWLER: Object to the form.

(9) A: I'm not an expert in that area, and I have not formed an opinion on it.

(10) Q: Okay. Do you agree with the statement that (11) government efforts in stopping (12) smoking are extremely minimal?

(13) A: I do not dwell on the details (14) Governmental efforts. I dwell on the intent and the (15) scientific facts that I know of. So, in terms of the (16) public health efforts, I'm not saying that I'm an expert in those efforts. I would like to say that (17) an expert in the specific science, but I wouldn't want (18) to excessively pass judgment.

(19) I think that, as I said, the (20) public health community has certain appropriate (21) actions it can take, and I think the warning labels (22) are appropriate actions. I think in terms of the (23) public health community taking them, I'm not saying

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(1) the warning labels are appropriate in terms of their (2) scientific content. So, I want to make that (3) distinction.

(4) Q: Okay. Do you believe, and when you (5) talk about the public health community, I guess we're talking together the Government and anti-smoking (6) interests, is that how you are - Because you used the (7) term public health community, I guess. Let me (8) withdraw it, and say, how do you define public health (9) community?

(10) A: Well, that's an interesting (11) question, because I don't know if there is a specific (12) definition. I think that there - Some of the public (13) health community are individuals that work for certain (14) agencies within the Government, but there are also (15) certain scientists that make it their career to (16) basically study public health in a very general sense. (17) I'm not sure, (18) rather than study

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specific mechanisms of disease or (1) specific science and scientific data and experiments.

(2) Q: Okay. Well, do you believe that (3) the public health community's efforts at stopping (4) smoking are bad science? In other words, based on (5) inappropriate scientific criteria?

(6) MR. FOWLER: Objection. Vague.

(7) A: I think - I don't know what

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(1) criteria they're basing their efforts on. As a matter (2) of fact, I don't know, in my opinion, based on what (3) I've seen, that I'm not sure there is a clear (4) position. And I will give you an example. In the (5) 1970s, there's probably more than 12 papers in the (6) literature calling for higher nicotine/tar (7) cigarettes, presumably on the assumption that, you (8) know, smokers would smoke less.

(9) Then, you hear, no, we don't want (10) to do that. Then you hear, well, maybe we ought to do (11) that. So, I'm not sure what the opinion is, and I am (12) not sure what data it's based on.

(13) Q: Okay. Of those - But, do you (14) believe that the public health community, to the (15) extent it advocates a ban on smoking or the (16) elimination of smoking in the United States, for (17) example, is trampling upon the individual's freedom of (18) choice?

(19) A: Yes, I do.

(20) Q: Now, do you believe that the term (21) "nicotine addiction" is a pejorative term that's (22) emotionally charged and not based on good science?

(23) MR. FOWLER: Object to the form.

(24) A: Well, I don't know if I would use (25) those exact words to characterize it. I think that's

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(1) rather a negative characterization. I would certainly (2) in any case that it's not well defined and to use it in a way (3) that - And not to define it would create confusion in (4) the scientific and in the consumer community, and I (5) think it's inappropriate to do that.

(6) Q: Do you believe that the (7) anti-tobacco nicotine addiction proponents are driven (8) by highly selective, biased data, a lack of (9) objectivity and a desire to ignore the truth?

(10) MR. FOWLER: Object to the form of (11) the question.

(12) A: Again, I wouldn't use those (13) words. I'm not sure precisely what each individual (14) person may base their opinions and facts that they're (15) using to base those opinions on.

(16) Q: In compiling the last seven pages (17) of Exhibit 1, which are the documents relied upon by (18) you, dated August 31, 1998, how did you go about doing (19) that? Well, first of all, did you create this list or (20) did someone else?

(21) A: This -

(22) MR. FOWLER: Object to the form.

(23) A: Yes. I did not type this list. (24) And, as a matter of fact, I will say that one of the (25) issues that we frequently have is that some of the

111 documents I have are not the documents that have the 12 Bates numbers. And, so, frequently, when we do this 112 for situations like this, I would have to actually 113 call and get the actual Bates numbers, because I have 114 copies that weren't the same copies that were 115 provided.

116 So, what would occur is over, you 117 know, I have--I have a number of documents. I have a 118 bibliography that's extensive. Obviously, I have 119 files. And, what would occur would be discussions and 120 providing certain data and documents over a period of 121 time. And, so, it was basically looked at as 122 representative discussions to some of the processes that 123 we've been doing over a period of time. For example, 124 just like the conversations I was telling you about 125 that occurred Monday afternoon, I will identify 126 certain specific things that I think, over time, make 127 certain processes.

128 Okay. Now, I notice the date on 129 this is August 31st, 1998, whereas your report was 130 prepared, I think, November 19th, 1998.

131 Was this document presented 132 before you wrote your report?

133 A: I have a -

134 Mr. Fowler: Object to the form of

135 the question.
136 A: I have a more extensive 137 bibliography that had been put together. It was 138 probably this thing, but with references, and this was 139 looked at as being more representative.

140 Q: Okay.

141 I got to the point where that 142 bibliography wasn't complete, because we hadn't 143 included all of it, all of the documents, for example, 144 that were collected. So, we changed tactics, and, 145 basically, took out what we thought were 146 representative or, as you pointed out, the key 147 documents.

148 Q: Right. When you say "we took 149 out," how was this list formed?

150 A: I think I went over that, 151 basically, it's better to, as the date indicates, 152 long-term processes and being involved in a number of 153 different exercises, including exhibit exercises, 154 representative exercises, and providing data and 155 getting data on specific examples of certain points. 156 And, these were some of the key documents that have 157 been out, and it wasn't prepared in any one setting, 158 I would say, I think some of the documents were 159 necessary provided. For example, the ones that are

160 dated 1998, and I know I have had expert reports and 161 submissions prior to that.

162 Q: Okay. But, you used the word "we" 163 in this. Were you the one who prepared the last seven 164 pages of Exhibit 1, or was it prepared by Counsel or a 165 combination of the two of you or someone else?

166 A: Well, I've had some assistance 167 from my staff, also, in terms of getting information. 168 I've

169 had some assistance from my staff in terms of 170 putting together the information for the 171 demonstration. I'm not sure, you know, who 172 specifically provided which document when, but I have 173 one of my staff who has an older version of a 174 bibliography, and we have created some of that and 175 provided new information, so it came from a number of 176 different directions.

177 Q: Okay, is this date right, this 178 date on the first page of the listing of the documents 179 that's dated August 31st, 1998?

180 A: I didn't type it, so, I don't 181 know.

182 Q: Okay, who typed it?

183 A: I don't know.

184 Q: Have you seen this particular 185 listing before today?

186 A: Yes.

187 Q: When did you see it?

188 A: I saw it Monday.

189 Q: All right. Had you seen it before 190 Monday?

191 A: Specifically, no.

192 Q: All right. When you mentioned a 193 moment ago that there had been a tactical decision, I 194 think, or you didn't say tactical decision, or you 195 said tactics, so narrow the field of documents 196 considerably from a document that was, and I think you 197 indicated maybe two tactics or an inch-and-a-half thick 198 to something that is now seven pages, when did that 199 tactical decision take place?

200 A: I wouldn't say it was a specific 201 time, but there were a number of discussions within 202 the last year over the bibliography. I have to 203 express frustration because I could spend all of my 204 working days maintaining that bibliography 205 if that's all I were to do, because there are new 206 because 207 reports coming out all the time. And, I did not want 208 to have one document that listed the data that I 209 would rely on.

210 I don't think that's appropriate 211 to link the data that one is to rely on. One should

212 be taking into account as much as possible in 213 forming 214 their opinion. And, so, it became an onerous task to 215 keep it current, and I think that the files expanded, 216 and we wanted to, you know, have the exhibits and the 217 documents be the exhibits and the actual data relied 218 upon because those are the facts that's the evidence, 219 and that this would represent some of the key 220 documents that support some of these key points.

221 Q: All right. And when you say "we," 222 I think you said it wasn't just your own decision. Who 223 else was involved in that decision to narrow this 224 list down?

225 A: I don't remember a specific 226 decision, but I do remember several conversations and 227 this has to do with it. This is a number of months ago, 228 with either Mr. Fowler or a number of other people.

229 Q: All right. And, so, in terms of 230 how these seven pages actually got generated, by whom 231

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and when, you don't know?
121 MR. POWERS: Object up the form.

121 A: I don't know who typed it.

122 Q: Okay.

123 A: I certainly recognize and have 124 provided, especially recognize and identified some of the recent things being recently sent to be included.

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11 Q: By you?

12 A: Yes.

13 Q: Okay. But, well, why don't we do 14 this?

15 Here you, in other cases, provided 16 a list of documents relied on?

17 A: In some cases, not recent - I 18 don't know, but I have, for example, Minnesota did 19 get this executive bibliography.

120 Q: What about the three other 121 extensive cases that are still in the system? Have 122 you provided a list of documents relied on in those cases?

123 A: Yes, I know, I don't know, I provided 124 this CV, and I have found that, in other cases, 125 it's been in and in other cases it's not. I provide 126 information and the Counsel makes that decision.

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127 Q: Okay. But, there is somewhere a 128 much bigger database from which this was collected by 129 somebody, or some people, in that?

130 A: I'd say there's a bigger list 131 what wasn't current and things have been added since 132 then.

133 Q: Right. But -

134 A: It's more accurate.

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11 Q: If we started out with, say, 120 or 121 half a million?

12 A: No, I wouldn't say it's an 123 million and half.

124 Q: Well, an inch?

125 A: Yeah, about that big.

126 Q: Alright. Well, let's say -

127 A: Yeah, an inch.

128 Q: Okay. If we had a half-an-inch 129 original, and then we were adding to it, one would 130 exponentially grow?

131 A: Yeah, Minnesota is about a year 132 ago. Okay.

133 Q: Okay.

134 A: Or more. And there have been 135 numerous discussions about, you know, including this 136 or reviewing that, and, the bottom line is, in that, 137 again, there has been so much literature, I don't want 138 to think. And it would be an onerous task, especially 139 when I understand that all these documents have been 140 collected, it would be repetitive, in my opinion, to 141 provide or make up a list. So, this is 142 representative -

143 Q: Okay.

144 A: - of the collected documents.

11 Q: Okay. Now, I want to touch briefly 12 on your salary and your compensation from the Company. 13 What is your current salary?

14 A: Around \$250,000.

15 Q: And, are there bonuses that go in 16 addition to that?

17 A: Yes.

18 Q: And, what was your bonus, your 19 most recent bonus?

120 A: Last year, bonus after taxes, I 121 believe, was about \$90,000.

122 Q: And, are there other benefits that 123 you receive as a Company executive, aside from bonuses 124 and salary?

125 A: Yes.

126 Q: What are those benefits?

127 A: There is profit-sharing that 128 everybody receives. There is a stock option program 129 that's awarded yearly, and there is a long-term 130 incentive program for certain levels of the 131 organization that's awarded every three years.

132 Q: Is that in terms of additional 133 compensation?

134 A: In terms of compensation, yes, I 135 mean, I have a Company car, but that's -

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11 Q: Okay. Can you approximate the 12 value of your profit-sharing plan right now?

13 A: I've gotten profit sharing since 14 probably 1981, and I believe the value is dependent on 15 the stock market, but is in probably around \$800,000 16 now.

17 Q: And, what about the value of your 18 stock options at this point in time?

19 A: Oh, boy. Again, I haven't - I 20 would say, it obviously depends on how I sell them and 21 when I sell them. So, I would have to say it might be, 22 I could be way off, but I would say a million or two 23 right now.

24 Q: Okay. In terms of being way off, 25 is that because you're trying to figure in tax issues 26 in the event that you sell, or are you just not sure 27 how many shares you own or stock options you have?

28 A: Well, I'm not sure I have gone 29 through the calculation at the current stock price. 30 I'm not sure - I honestly don't know how many shares 31 I own. I couldn't tell you that. And, it also depends 32 on, you know, what they were valued at when I got the 33 option. And, so, it's not easy to necessarily sit 34 here and calculate all those.

35 Q: Can you be any more specific?

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11 So, it's somewhere between one and two million 12 dollars?

13 A: I think if I were to sell them all 14 today, it would be somewhere around that, yes.

15 Q: And, what about long-term incentive 16 program benefits? Can you value their total, as of 17 today?

18 A: No. We just started in 1998 the 19 new year.

new three-year term. So, less than a year (101) has accrued on that.

(111) Q: Has your salary been approximately (112) the same over the last, say, five years, or is there a (113) change, significantly?

(114) A: Well, I mean, as I got promoted, I (115) got increases in salary. It hasn't really changed (116) significantly in the last number of years, and, to say (117) understanding, is well within the typical range of (118) what other executives at my level have.

(119) Q: Okay. And, would that be, would (120) your total compensation with bonus and salary over the (121) last, let's say, three years, be on the order of about (122) \$350,000?

(123) A: Over the last three years?

(124) Q: Yes. In other words, just going (125) back.

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(111) A: Well, let me do it this way.

(121) Q: Okay.

(121) A: I think that the bonus, I got one (122) long-term incentive compensation payment in early (123) '98. So, the new year, new three-year term, but just (124) started. I think that my bonus has been within the (125) \$0, (126) \$50,000 range for the last three years or so. (127) And that's after taxes. And I believe my raises (128) have been in the, seven percent was the last one, if (129) that helps.

(131) Q: Yes, that does. Okay. (132) And the last question you said, I (133) think, long-term incentive program, you said, the (134) first payment in 1998, how much was that payment?

(135) A: It was a three-year term, (136) and, (137) I think, around \$300,000, at that range.

(138) Q: Okay. And is that -

(139) A: -before taxes.

(141) Q: Okay. That's what I was going to say. Is that something that is then - Okay - is that (142) something that becomes taxable in that year 1998?

(143) A: Yes.

(145) Q: Okay. So, the tax would be paid on (146) that in -

(147) A: In 1998.

(149) Q: Okay. And there would be another (150) one in another three years?

(151) A: That's correct.

(152) Q: Okay.

(154) A: So, in 1998 W-2 form is not (155) representative of my yearly salary.

(157) Q: Got you. Okay. (158) All right. Now, are there any (159) other compensation issues that I have left out, other (160) than those?

(161) A: No, not that I can -

(163) Q: That was a terrible question, but (164) you answered it.

(165) Are there any other forms of (166) compensation you've received, other than the ones (167) you've described already?

(168) A: No.

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(101) Q: All right. Let's get back to your (102) report. I don't know exactly how to do this. But, we (103) were on Page 4 and you were in the middle, before we (104) took a break, of describing the efforts that Philip (105) Morris had made to selectively remove certain (106) compounds and to reduce the overall quantity of smoke (107) delivered from cigarettes. And, my notes show, at (108) least, that you were talking about Merit Ultramium

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(111) (sic)-

(121) A: Ultram.

(131) Q: -Ultram-

(141) A: Uh-huh.

(151) Q: -lower tar cigarettes and we were (152) talking about the sales-weighted tar average being (153) reduced dramatically lower tar. We've talked about (154) the filter technology, filter dilution, paper porosity (155) expanding tobacco, and then, before that, you had (156) talked about the use of filters. In the (157) first (111) instance, removing phenols and volatile Nitroamines, (158) progressing from the (159) 1990s, I think, through the (160) '70s.

(161) I don't know if that accurately (162) summarizes what we have done, but, having said that, (163) there are other issues, specific points, you intend to (164) make at trial, other than what I have just described (165) regarding Philip Morris' efforts to remove certain (166) compounds and reduce the overall quantity of smoke.

(167) MR. FOWLER: Object to the form.

(171) A: Wow, I, you know, there are (172) certainly more details around all of those. There are (173) certainly, again, I think I represented years of (174) research in Benz(a)-C(12a)-pyrene, years of research in (175) Nitroamines. There is internal, I mean, there's a lot

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(181) more detail in all of those. There is the Accord (182) System, there is Denic, there is the NOD process, a (183) nitrate reduction process.

(184) Q: If you can just slow down a (185) little.

(186) A: I'm sorry.

(187) Q: I appreciate your being extensive (188) in with me, except I'm going have to go back and repeat. (189) Maybe we can do this by having the Court Reporter, if (190) she's not too tired, read it back, that portion of the (191) last answer.

(192) NOTE: The requested answer was (193) read aloud by the Reporter.

(194) Q: Okay. Sorry to interrupt you in (195) mid-stream, but, having that read back, can you (196) continue with your answer?

(197) Well, I'll summarize it again. (198) Years of research on benzo(a)pyrene (sic)

(199) A: Benzo-C(12a)-pyrene.

(200) Q: Benzo(a)pyrene (sic)?

(201) A: A-pyrene.

(202) Q: Okay. Years of research on (203) Nitroamines?

(204) A: Uh-huh.

(205) Q: The Accord Project?

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111 A: Right.
112 Q: The Denik project?
113 A: Uh-huh.
114 Q: And then the NOD process?
115 A: Right.
116 Q: What is the NOD process?
117 A: Naturally Occurring in Denitrification.
118 Q: Other than what I have just gone (118) through, are there other issues about which you intend (111) to testify at trial on this point?
119 A: Well, again, just, you know, the (119) filtration over the years, and design of cigarettes (14) and substituted but, I mean, all the factors (119) relating to those, I think that's pretty complete.
119 MR. FOWLER: And, for (17) clarification, she had mentioned some earlier in the (14) deposition that wasn't relied on.
119 A: Yes.
120 Q: What were those, just out of (111) curiosity, if you remember?
121 A: Well, I think I mentioned carbon (121) monoxide catalyst, I had mentioned cadmium. There (14) were, besides Denik, there was also a PMT project that (21) the government to reduce nicotine. You know, they're

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(11) referred to that. For example, in the Accord Program, (21) we started in 1976 with developing a cigarette that was primarily much similar to what Reynolds came out with in (14) terms of Premier. So we call that Delta. There was (14) Delta, and then Beta was the actual Accord Program (4) itself. So there's that history within that set of (7) novel cigarettes.
121 I mentioned phenols. Yes, (14) mentioned volatile Nitroamines. I hope (14) them (11) all.
121 Q: Okay, if we continue down to (11), Paragraph 4 on Page 4, are there other issues?
121 A: Well, like you've already (14) touched upon those topics in response to (11) previous (119) questions, and I won't go through them.
121 MR. FOWLER: What topics?
121 A: Yes, I'm not sure what the (11) question is.
121 Q: It wasn't a great one. The second (11) sentence of the fourth paragraph on Page 4, would you (11) read that to yourself?
121 NOLE: Witness complying.
121 A: Uh-huh.
121 Q: On what do you, on what will you (11) base that opinion?

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121 A: General reduction and lower tar (11) design?
121 Q: Yes.
121 A: Those are the things I was talking (11) about in terms of filtration dilution, expanded (11) tobacco, cigarette design changes over time.
121 Q: Okay, if you can, go a little more (11) slowly in your response.
121 A: Okay. The evolution of filters, (14) what I had described above Merit (11) Ultra in terms of (11) using

paper core concentric filter, and how, if you (11) use just a paper filter, you have reduced more tar.
121 But it wasn't acceptable to the consumer. So we (14) designed a paper core concentric filter that used a (11) paper core and was able to reduce the tar and yet (14) provide an acceptable product for the consumer that (17) delivered only one milligram, that's an example.
121 Dilution, how we've evolved over (11) being, you know, actually poking holes in cigarettes (121) to get air to dilute the smoke, so actually later (11) perforation and actually commercializing that process.
121 There was also an electrostatic (121) perforation process that was used at one time. So, the (121) technologies and the development of the (121) commercialization of those technologies were also a

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(11) very important part of that.
121 Expanded tobacco, you can expand (11) tobacco and you can destroy it in the process. So (14) there's been an evolution of expanded tobacco and many (11) different kinds of expanded tobacco used, and agents, (11) different agents used to expand tobacco. And we, you (11) know, even 'til recently have been trying to develop (11) expanded tobacco that is more acceptable to the (11) consumer so that we can reduce tar and increase the (11) sales-weighted average to a lower tar, in other (11) words, make the lower tar cigarettes more acceptable.
121 Reconstructed tobacco, another (11) example.
121 Q: Okay, Anything else via (11) (11) lower tar design objective receiving increased (14) emphasis over the years that you can remember, now?
121 A: Well, in terms of the lower tar (14) design objective, you know, what I have described as (11) our internal efforts, there is a whole body of (121) literature, external, that had called for those lower tar cigarettes. So, I'm familiar with some of that, (121) also.
121 Q: Okay, What about the next sentence (121) that says, you "may also readily that Philip Morris, (121) and other tobacco companies, have been instrumental in

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(11) developing new design techniques?
121 A: Right.
121 Q: All right. Is that, is there (14) something in addition to what you have already said (11) that you expect to testify about which this says?
121 MR. FOWLER: Object to the form.
121 A: Right. I'm not, again, I think the (11) best example of that is the Accord Program in terms of (11) Premier, Redman, Beta or Accord, Delta, Sigma and (11) some of the prototypes that we had looked at over the (11) years.
121 Q: Aside from the Accord Program, (11) what would you consider to be other prime examples of (14) that?
121 MR. FOWLER: Object to form.
121 A: Reynolds, Redman, Premier are (11) prime examples of new design techniques. There are (11) also new designs for filters, I have mentioned

the in paper core concentric filter.

121 Q: And then your last sentence there, 121 testify that Philip Morris sells cigarettes with a 122 wide range of tar and nicotine yields and that 123 nicotine yields do not determine the success of a 124 cigarette brand."

125 On what will you base that

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11 option, specifically?

121 A: Well, an analysis of the 121 marketplace data, 122 Q: And, did you do an analysis of the 123 marketplace data?

124 A: Well, actually, that analysis is 125 provided in things like Maxwell Reports, and that's 126 where we get a lot of our data. So, I don't do that, 127 in particular, I think it's fairly obvious that, 128 for example, in the Marlboro family, Marlboro Lights 129 is the highest-selling cigarette, and Marlboro Red is the lowest.

130 So basically, an issue 131 is, as you increase nicotine your sales increase. I 132 think that's something that we want to make here.

133 Q: All right. At the bottom of Page 134 135 and beginning at the top of Page 3, you say that you 136 "may readily in rebuttal show the options 137 contemplated by Plaintiff's witness, including 138 cigarette design 139 and manufacturing, including 140 allegations pertaining to 141 nicotine "manipulation," testing reconstructed 142 tobacco, the use of ammonia, additives, ingredients, 143 and 144 allegations about Philip Morris' "knowing" and 145 development efforts or any other options 146 offered by 147 the Plaintiff's experts within your area of

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111 expected? That's what you say, correct?

121 A: That's right.

122 Q: Okay, you have no opinions now on 123 the subject, because you haven't looked at any of the 124 expert testimony reports, correct?

125 MR. FOWLER: Object to the 126 form of 127 the question.

128 A: I have opinions, yes, because I've 129 looked at the data. Whether or not I use them in trial 130 is dependent on whether or not they come up in trial.

131 Q: Okay, what are your opinions in 132 opposition to the options expressed by Plaintiff's 133 witnesses related to cigarette design and manufacturing?

134 A: I don't know what the opinions of 135 Plaintiff's witnesses in this case are on that.

136 Q: Okay, and the same would be true 137 for all the other topics in this paragraph, correct? 138 You don't know what Plaintiff's opinions are, so, you 139 can't respond at this time, correct?

140 MR. FOWLER: Objection.

141 A: Well, I can certainly respond to 142 any options based on data. I certainly can't respond to 143 something I don't know about.

144 Q: All right. When you say respond to 145 your opinion based on data, what is your opinion

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111 regarding nicotine manipulation?

121 A: Well, over some years now there's 122 been some allegations on nicotine manipulation and 123 splitting, and we don't add nicotine in the process of 124 manufacturing cigarettes. If one were to do the 125 calculation of what it would take to significantly 126 increase the nicotine level with the volume of tobacco 127 in and cigarettes we use, you would find that it would be 128 absolutely impossible to do so. And, so, that's pretty 129 obvious point, I think.

130 Q: Okay, and what is your opinion 131 with respect to reconstructed tobacco?

132 A: Well, it depends on what point you 133 want to make about reconstructed tobacco. You know, 134 there have been various allegations in the media, and, 135 it really depends on the points that are made.

136 I mean, I, you know, what the 137 process is, the various reconstructed tobaccos that 138 are used, the impact they have on tar and nicotine, 139 you know, there's all sorts of points on that process.

140 Q: Well, why is it that you included 141 in this expert report of yours?

142 A: Well, I included it, because it's 143 been an issue in the past and it's an example of 144 something that might come up, I would assume.

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111 Q: Okay, what has been the issue in 112 the past regarding reconstructed tobacco?

113 A: That that was a method of adding 114 nicotine to the cigarette. In fact, the evidence 115 indicates that in the processing, adding nicotine 116 and/or ammonia, so that that was one of the ways that 117 we were accused of manipulating nicotine.

118 Q: All right. And your opinion is 119 that there was no such manipulation?

120 A: That's correct.

121 Q: And, what is your opinion with 122 respect to what role reconstructed tobacco plays in - 123 what had others said about reconstructed tobacco that 124 caused you to put this as part of your opinions?

125 MR. FOWLER: Objection. Asked and 126 answered.

127 MR. CRANDALL: Well, if I did, I 128 apologize.

129 A: The terms here, basically, do go 130 to adding ammonia or using ammonia in making a certain 131 type of reconstructed tobacco. And then that ammonia 132 then was used in the smoke and enhancing the delivery of 133 nicotine and/or the absorption of nicotine, and I have 134 data evidence to basically say that that doesn't

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111 occur.

121 Q: Okay, and what is the principal 122 evidence that you have that refutes that 123 contention?

124 A: Well, there are published studies 125 that indicate that, well, first of all, the levels 126 of ammonia that are added, the pH of tobacco and in

smoke, that's been published. The actual scientific relationships that are, and mechanisms that are occurring, which can be complex and have been (111) misinterpreted.

(112) For example, the misnomer of smoke (113) PH. PH is generally a phenomenon in a liquid. And (114) the concept of having a smoke PH; that is, a PH of (115) something that's not a liquid, is a misnomer in (116) itself. Well, guess, we can go on. I mean, I have been (117) looking at this now for three or four years, actually, (118) five years.

(119) Q: Okay. You say you will also (120) Testify regarding a process by which nicotine is (121) transferred from cigarette filter into cigarette (122) smoke, as well as the mechanics of the tear by which (123) cigarette manufacturers declare "tar and nicotine (124) yields"?

(125) A: Yes.

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(11) Q: What score specifically will you (12) say about that subject, other than what's in the (13) report?

(14) MR. FOWLER: Pardon me. Did you say (15) filter or filter?

(16) A: Yes. I think he said filter, but (17) it says cigarette filter.

(18) Q: Okay.

(19) A: --and cigarette smoke.

(20) Q: That's right.

(21) A: Very specifically, that relates to a study that was done and published and presented at (22) three meetings and, basically, is a study of the (23) different forms of cigarettes and the (24) (25) the fact that the heat of combustion of a cigarette, (26) which is 800, 900 degrees Centigrade, (27) is sufficient (28) to create nicotine, which is a free base or a salt, as far bound nicotine.

(29) So, therefore, the form of (30) nicotine in tobacco is irrelevant, because the heat at (31) which tobacco burns is sufficient to deliver the (32) nicotine in itself.

(33) Q: And, you said there was a (34) particular study (35) on your list of disclosure (36) documents?

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(1) A: Yeah, mean these particular lists (2) here?

(3) Q: Yes, the seven-page list that's at (4) the end of Exhibit 1.

(5) A: I'll have to go see. It probably (6) is included in the (7) availability of nicotine. Again, (8) I would suspect (9) might be included in that.

(10) Q: Which page of the disclosure?

(11) A: It's the second to the last page. (12) It's dated 1994.

(13) Q: Is it the last entry on the second (14) to the last page that says, "a safety assessment of (15) the ingredients"?

(16) A: No-no. No-no. It's the top, the (17) second to the top, on the second to the last page, (18) bioavailability of nicotine.

(19) Q: Oh, 1994?

(20) A: Right.

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(119) Q: 11/1/97
(120) A: Right.

(121) Q: Is that the document to which you (122) alluded to a moment ago when you said, principally one (123) study?

(124) A: It's not the actual study, but it (125) may be a summary of what we had put together in 1994.

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(11) Q: What was the actual study that you (12) were referring to as being the principal point in (13) supporting this opinion of yours?

(14) A: The actual study was a series of (15) experiments, some of which were done, a number, like (16) maybe ten years ago, and some of which were done (17) recently. They've been presented three times now, with (18) the most recent presentation this past summer at the (19) American Chemical Society meeting. So, there are (20) three abstracts publicly available on this particular (21) study and there is a draft that has been and is being (22) prepared for publication.

(23) Q: Any particular reason why (24) it wasn't on the seven-page list, any of those abstracts?

(25) A: I think that one reason may be (26) it's included, the information, basically, is (27) included; that the final report and experiments were (28) ongoing, so the final report wasn't completed. The (29) basic information is publicly available. So, you (30) know, this was Philip Morris documents, and I think (31) that it, you know, in spirit was included.

(32) Q: Okay. Can you identify for me, (33) specifically, the name of those three abstracts that (34) are publicly available? In other words, what they're (35) called?

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(1) A: I don't know the precise title, (2) but it relates to studies looking at the evolution of (3) nicotine and nicotine salts, and the author, principal (4) author, would be J. Fournier. John Payne is also (5) included and Jeff Sosman.

(6) Q: And has that recently been subject (7) to peer review?

(8) A: Well, like I said, there have been (9) three abstracts at different meetings presented. The (10) final report is nearing completion and is about to be (11) submitted for publication. In terms of it being (12) accepted to be presented at an American Chemical (13) Society meeting, I think that is a form of peer (14) review, because I don't believe they accept (15) everything.

(16) A: It's been handed out in a draft (17) form at the Society for Nicotine and Tobacco Research, (18) at least two, maybe three years ago now. So, the basic (19) information has been available.

(20) MR. GRANDALL: It's almost five (21) o'clock, and I'm going to end the deposition, (22) although I'm not sure that I asked you, Counsel, but I (23) don't know if I made a formal request at the time that (24) we were discussing it or not, but it seems to me that (25) you do have an obligation to produce the 15 to 16 file

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(1) I believe that were asked about by the witness in the (2) afternoon session, I just want to make

sure that (2) request is on the record. And, subject to issues (4) having to do with what has or has not been produced, (5) that's all I have, at this time.

(6) MR. FOWLER: I don't consider any (7) of the requests on the record as formal requests for production. So we'll need to discuss that further.

(8) That's all I'll say about production of documents as (9) requested in the deposition.

(10) MR. CRANDALL: So you don't intend (11) to respond to them as presently stated?

(12) MR. FOWLER: You'll need to get (13) something formal to me to respond to.

(14) MR. CRANDALL: Okay. All right.

(15) MR. FOWLER: Because I haven't (16) taken a note of everything that you have said in terms (17) of things you have requested.

(18) MR. CRANDALL: Okay. But these are (19) not small things, at least in my opinion. And, (20) I don't need to go into it, but I think there are some (21) very big issues that need of be addressed forth with, and we will do so. And that's the only reason I'm stopping my questioning, and I am done, and I (22) appreciate Dr. Ellis' attendance, but I'm fair from

(23) MR. FOWLER: Well, fine, we can talk about that at a later time.

(24) MR. CRANDALL: Right.

(25) MR. FOWLER: But your answer that (26) the entire process was laid out on agreement by (27) Counsel on how this would, how the proceedings would be exchanged, and so forth, prior to deposition.

(28) MR. CRANDALL: I am. I am. I don't think this completely with it whatsoever, but I'm aware (29) of it.

(30) MR. FOWLER: Okay. I have a (31) contrary view.

(32) MR. CRANDALL: Okay. (33) All right, Dr. Ellis. Thank you very much.

(34) MR. FOWLER: Why don't we take a (35) break. I want about three or four minutes to (36) whether there is anything I want to ask of Dr. Ellis, (37) and then we can complete.

(38) MR. CRANDALL: Okay.

(39) NOTE: At this point, a recess was (40) had from 4:59 PM to 5:02 PM.; whereupon the (41) deposition proceeded, viz:

MR. FOWLER will reserve my questioning of Dr. Ellis for the time of trial. She will read and sign. I declare under penalty of perjury under the laws of the State of Ohio that this transcript is true and correct. Executed on _____ at _____

SECRETARY OF THE WITNESS

(42) COMMONWEALTH OF VIRGINIA,
(43) CITY OF RICHMOND, to-wit:
(44) PATRICIA PRICE WHITE, a Notary Public in (45)

Lawyer's Notes

and for the Commonwealth of Virginia at Large, of (46) qualification in the Circuit Court of the City of (47) Richmond, Virginia, and whose commission expires on or the 31st day of December, 1997, do certify that (48) pursuant to Notice, the within deponent, appeared (49) before me at Richmond, Virginia, as heretofore set (50) forth, and after being duly sworn by me to "testify (51) the truth, the whole truth, and nothing but the truth, (52) so help you God," of his knowledge touching and (53) concerning the matter in controversy in this action at (54) law, was thereupon examined upon his oath by counsel, (55) and his examination reported in shorthand by me and (56) transcribed by me; and that the foregoing is a true (57) and correct transcript of the testimony adduced, and (58) other matters set forth therein and relating thereon.

(59) I further certify that I am not related to, (60) nor associated with any counsel or party to this (61) proceeding, nor otherwise interested in the events (62) thereof; and that there was one (63) exhibit introduced (64) during the deposition, and is attached to the back of (65) the original of said deposition transcript.

Given under my hand and Notarial Seal at Richmond, Virginia, this, 16th day of January, 1999.
PATRICIA PRICE WHITE, NPA, CP
Notary Public for the State of Virginia at Large.
My Commission expires December 31, 2001

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CATHY L. ELLIS, Ph.D.
NUMBER DESCRIPTION IDENTIFIED
1 Report Report of Dr. Cathy L. Ellis, Ph.D.

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Lawyer's Notes

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Cathy L. Ellis

Ohio Teen Workers

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